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HARRIS COUNTY ARCHIVES

Document Separation Sheet

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The following material has been removed from:

Box: 1483  
Folder: 37  
Location:

Description of materials:

Accession No: 2008.027

Date: 1966-1973

Reason for removal:

Closed - Medical Records and Personal Photographs ML 73-3413 Billy Gene Baulch, Jr.

New Location:

Box: 1484

Folder: 15

Location:

Notes:

Make 2 copies: place one in new location with transferred materials,  
one in original location.

Date: 7/21/2010

Signed: 

1973 MASS MURDER INVENTORY CASES TO DATE AS OF 071501

DR. DELATTRE VIEWED CASE:

CASE FINDINGS...SEE ATTACHED REPORT DATED

ITEM #	CASE #	DECEDENT'S NAME	TYPE OF REMAINS	LOCATION OF REMAINS	DATE FOUND	DATE ID'D & BY	WHAT METHOD
(26)	73-3413	Billy <sup>Wm-</sup>	Skeletal	See	8-13-73	See	10-8-73
	Body #5	Gene		Autopsy	High	Supplement	
	Grave #4	Baugh, JR		Report	Island	dentals	
FOUND@: Chambers Co.					grave site		
NOK NOTIFIED: <input checked="" type="checkbox"/> Y / <input type="checkbox"/> N							
DATE / TIME NOTIFIED: 10-8-73		Dad		NOTIFIED BY WHOM: Dr Jachimczyk			
AUTOPSY DONE BY/DATE: Dr. Jachimczyk		8-15-73					
INVESTIGATOR REPORT: <input checked="" type="checkbox"/> Y / <input type="checkbox"/> N		AUTOPSY REPORT: <input checked="" type="checkbox"/> Y / <input type="checkbox"/> N		POLICE REPORT: <input checked="" type="checkbox"/> Y / <input type="checkbox"/> N		SCENE PHOTOS: <input checked="" type="checkbox"/> Y / <input type="checkbox"/> N	
DEATH CERTIFICATE: <input type="checkbox"/> Y / <input type="checkbox"/> N		DATE D/C SIGNED: Not in file					
Not in file							
FULL BODY XRAYS: <input type="checkbox"/> Y / <input type="checkbox"/> N		DENTAL CHART/XRAYS: <input type="checkbox"/> Y / <input type="checkbox"/> N		DNA: <input type="checkbox"/> Y / <input type="checkbox"/> N		RELEASE SIGNED: <input type="checkbox"/> Y / <input type="checkbox"/> N	
Not in file		Body xrays in file + See Dr Simons autopsy exam report		Not in file		DATE: Not in file	
BY:		file					
TRANSFERRED TO HCME							
BY: Sterling F.H. Dayton, TX							
FUNERAL HOME: Heights		BURIED		?		CREMATED ?	
MANNER OF DEATH:		Asphyxia due to strangulation				DOD: 5-21-72	
SOURCE: Home Report & Investigator File							
OTHER INFORMATION: J.P. order in file dated 8-13-73							
See 10-11-73 supplement re: skeletal parts		No property					
Comp. cases 73-3365, 3366, 3408, 3409, 3412							

BODY CAN BE VIEWED: YES \_\_\_\_\_ NO \_\_\_\_\_

SEX: M

SCARS: Decomposed body

RACE: W

TATTOOS: \_\_\_\_\_

EST. AGE: \_\_\_\_\_

OTHER: \_\_\_\_\_

HEIGHT: 72

X-RAY: \_\_\_\_\_

WEIGHT: \_\_\_\_\_

CLOTHING: Nude

EYES: \_\_\_\_\_

PERSONAL EFFECTS: None

HAIR: It, brown 7 inches

DECEDENT'S NAME: \_\_\_\_\_

DECEDENT'S ADDRESS: \_\_\_\_\_

NEXT OF KIN: \_\_\_\_\_

ADDRESS: \_\_\_\_\_

IDENTIFIED BY: \_\_\_\_\_ DATE: \_\_\_\_\_

ADDRESS: \_\_\_\_\_

HCME OFFICER PRESENT: \_\_\_\_\_

(13) 9-27-73 NPS Chemist + Toxicologist, James A.  
Zotter rec'd head + pubic hair from dec.  
Also rec'd. samples of both types of cord  
that was recovered.



INVESTIGATOR'S REPORT

Autopsy

Investigator: L. C. Kelly

~~XXXX~~

Case No. 73 - 3333

Decedent: Michael Anthony Baulch Race W Sex M Age 15

Address: 439 West 16th Street, Houston, Texas

Death: FOUND August 8, 1973 Approx. Time 8:00 ~~XXXX~~  
P.M.

Place of Death: 4500 Silverbell Street, Stall #11, Houston, Texas

Place of Inquest: 4500 Silverbell Street, Stall #11, Houston, Texas

Date and Time of Inquest: August 8, 1973 8:45 ~~XXXX~~  
P.M.

Location, Position, and Surroundings of Body:

The decedent was lying in grave #1, wrapped in plastic, lying on the left side under Unknown #1.

Clothing: There was no clothing.

Information:

This is a related case to Medicolegal 73-3329.

L. C. Kelly  
L. C. Kelly *nn*

(See Companion Cases 73-3332, 73-3334, 73-3335, 73-3336, 73-3337, 73-3338, 73-3339, 73-3347, 73-3348, 73-3349, 73-3350, 73-3353, 73-3354, 73-3355, 73-3356 and 73-3357)

Property: There was no property.

Transferred to Morgue by: Bob Lee Funeral Home, Houston, Texas

Funeral Home Conducting Service: Heights Funeral Home, Houston, Texas

LOCATION: 4500 Silverbell <sup>Stall # 11</sup> GRAVE # 1  
UNKNOWN # 2 M.E. CASE # 73-3333

IDENTIFIED

NAME: Michael Anthony Baulech

STILL UNKNOWN

I N V E N T O R Y   S H E E T

HAIR SAMPLES: _____	AUTOPSY REPORT: ROUGH	<u>FINAL</u>
BODY X-RAYS: HCME <u>6</u> OTHER _____	SUPPLEMENTAL: ROUGH	<u>FINAL</u>
DENTAL X-RAYS: HCME _____ OTHER _____	INVESTIGATORS REPORT: ROUGH	FINAL
HCME PHOTOS: BODY _____ PERSONAL EFFECTS _____	SUPPLEMENTAL: ROUGH	FINAL
CLOTHING _____ DENTAL _____	TOXICOLOGY REPORT	
PHOTO FROM FAMILY: _____	DENTAL EXAMINATION: ROUGH	<u>FINAL FORM</u>
MISSING PERSONS REPORT _____	POINTS OF COMPARISON: ROUGH	FINAL FORM
DEATH CERTIFICATE <u>✓</u>	HCME DENTAL CHART _____	
BRIEF PHYSICAL DESCRIPTION <u>✓</u>	OTHER DENTAL CHART _____	
SYNOPSIS OF MEDICAL TESTIMONY: _____	EVIDENCE SHEET: _____	
CORRESPONDENCE: _____		
_____		
_____		
_____		
_____		
COMPARISONS: _____		
_____		
_____		
_____		
OTHER: _____		
_____		
_____		
_____		

# STATE HIGHWAY PATROL

## DENTAL CHART

Fill out all information in PENCIL

_____ Assigned identification number	_____ Division Case Number
<u>73-3333 #2</u> Autopsy number	_____ Picture Pouch Number
_____ Armed Forces Serial Number	<u>8/10/73</u> Date of Exam.
_____ Social Security Number	_____ Place of Exam.

IDENTIFICATION STATUS (CIRCLE ONE)

UNIDENTIFIED AT PRESENT TIME, PRESUMPTIVE BY EXCLUSION, HIGHLY PROBABLE, POSITIVE

<i>Michael Baulch</i>			
Name of Person Identified	Age	Race	Sex

The above block is to be completed after all I.D. Procedures are exhausted.

CONFIRMED IDENTIFICATION OF BODY BY \_\_\_\_\_  
Name of Examiner

Confirmed identification by means of (circle) X-ray comparison, Clinical conformation by previous dental records, Other \_\_\_\_\_

X-rays taken (circle one) None, Complete Mouth, Bite Wings, Other \_\_\_\_\_

Photographs taken (circle one) None, Color, Black & White, Other \_\_\_\_\_

\_\_\_\_\_  
Name, Address, and Telephone Number of Photographer

\_\_\_\_\_  
Location of the Body

\_\_\_\_\_  
Position of the Body

<p>BEFORE PROCEEDING—READ PAGE 2 CAREFULLY AND FOLLOW ALL INSTRUCTIONS—HAVE A QUALIFIED ASSISTANT TO DO ALL RECORDING RECORD ALL INFORMATION IN PENCIL</p>
--

\_\_\_\_\_  
Name, Address, and Telephone Number of the Examiner

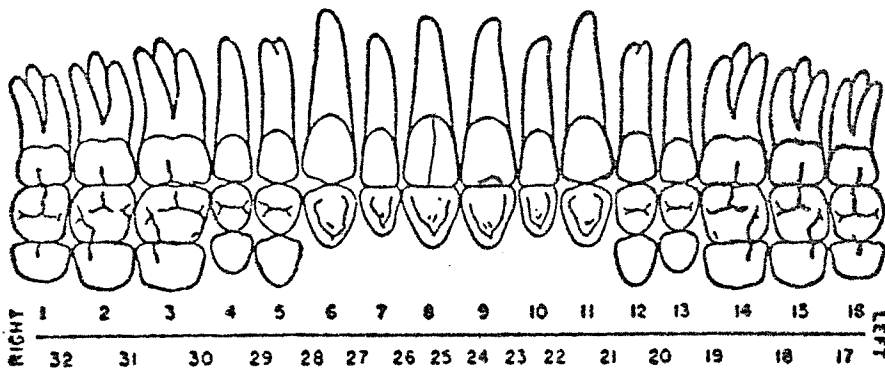
\_\_\_\_\_  
Name, Address, and Telephone Number of the Assistant

\_\_\_\_\_  
Signature of the examiner

\_\_\_\_\_  
Signature of the Assistant

MARK ALL EXISTING RESTORATIONS AND MISSING TEETH ON THIS CHART

Estimated Age \_\_\_\_\_  
 Sex \_\_\_\_\_  
 Race \_\_\_\_\_



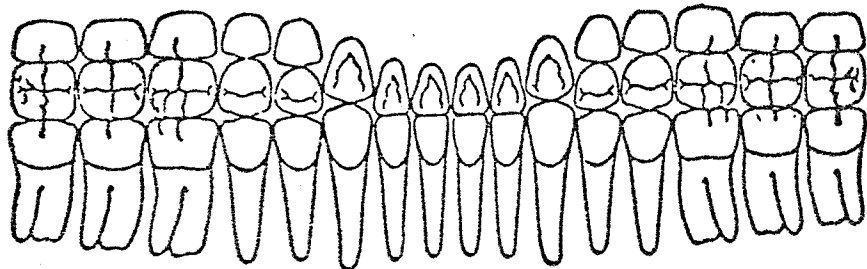
Circle descriptive term

Prosthetic Appliances Present — Maxilla

Full Denture

Partial Denture

Fixed Bridge



Prosthetic Appliances Present — Mandible

Full Denture

Partial Denture

Fixed Bridge

Describe completely all Prosthetic Appliances or

Fixed Bridges # 9 CHIPPED INCISAL # 8 VERTICAL CRACK

Stains on teeth

Slight

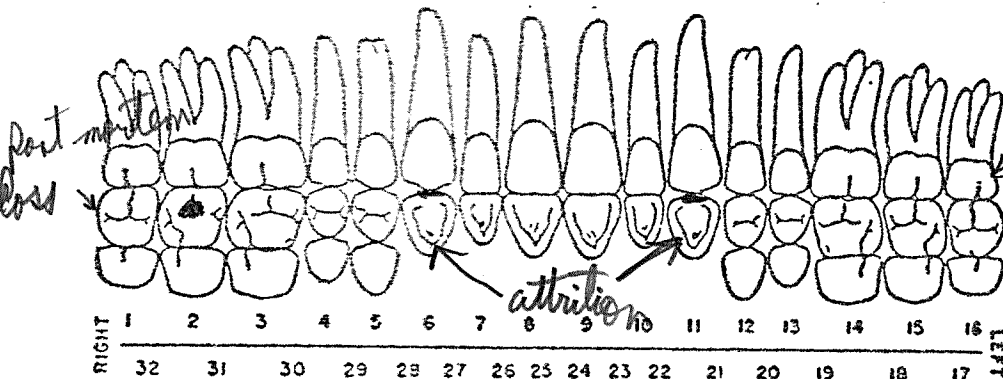
Moderate

Severe

MARK ALL CARIES

TEETH ON THIS CHART

Outline all caries and 'X' out all missing teeth



Circle descriptive term

Jaw Relationship

Normal

Undershot

Overbite

Periodontal condition

Excellent

Average

Poor

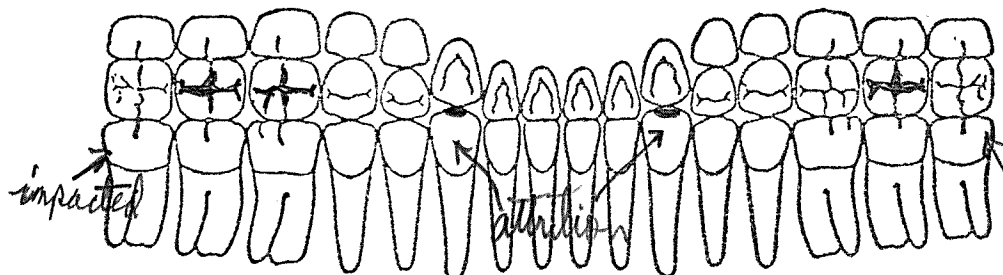
Gross Neglect

Calculus

Slight

Moderate

Severe



OFFENSE REPORT

PAGE NO. **ONE** HOUSTON POLICE DEPARTMENT SER. No. **D-68920**  
 LOCATION **4500 BELVER BELL**  
 OFFENSE **MURDER** CHANGED TO  
 COMPLAINANT **MICHAEL ANTHONY HAULCH** ADDRESS **439 W. 16th** PHONE **862-8344**  
 SEX-RACE-AGE **WM 15**  
 REPORTED BY **ELMER WAYNE HENLEY WM-17** ADDRESS **325 W. 27th** PHONE  
 TYPE PREMISES **RENTAL STORAGE GARAGE**  
 TIME OCCURRED  
 TIME RECEIVED **2 2:30PM WED, AUG. 8, 1973** BY **DET. D.R. JAMES** HOW **PHONE**

**MF**  
**3333**  
 PHONE **862-8344**

HOW-MEANS	OBJECT	TRD. MK.	DESCR.	CLEARED	DATE			
DISTRIBUTION	1 CASH	2 JEWELRY	3 BICYCLES	4 CLOTHING	5 MOTOR VEHICLE	6 MISCELLANEOUS	7 FURS	TOTAL
LOSS								
RECOVERY-DTL.								

(DETAILS OF OFFENSE-SUSPECTS-PERSONS ARRESTED-PROPERTY)

**NOTE:** THIS WILL BE A COMPANION CASE TO D-68904, WHICH WILL CONTAIN ALL DETAILS OF THIS OFFENSE. OTHER COMPANION CASES WILL BE D-68905 THROUGH D-68911 and CASES D-68915 THROUGH D-68923.

**INTRODUCTION:**

This complainant was found in a grave in a rental storage garage at the above location on 8-9-73. THE identity of this complainant is unknown at this time. For Details known at this time see case D-68904.

**IDENTIFICATION OF COMPL. 10-9-73**

DR. Jachimoyzk called this date and stated that he had made ID of this Compl. as BODY #2 from the boat shed. The cause of death was by two gunshot wounds at close range to the head.

OFFICERS **D.R. JAMES D-547** **L.L. EARLS D-576** **N. NEUMAN D-461** **K. D. Porter D563**  
 (DO NOT TYPE BELOW THE SOLID LINE OR LIST PROPERTY ACROSS THE DOTTED LINE.)

EDITED CHANGED INDEXED BULLETIN PUNCHED



JOSEPH A. JACHIMCZYK, M.D., J.D.  
FORENSIC PATHOLOGIST  
ATTORNEY AT LAW  
CHIEF MEDICAL EXAMINER



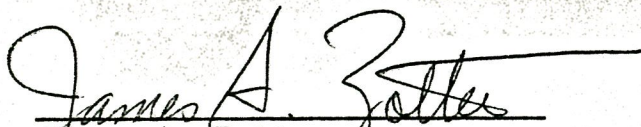
228-8311  
EXT. 671 (DAY)  
EXT. 212 (NIGHT)


OFFICE OF THE MEDICAL EXAMINER  
OF HARRIS COUNTY

HARRIS COUNTY COURT HOUSE  
HOUSTON, TEXAS 77002

September 27, 1973

This date, September 27, 1973, James A. Zotter, Chemist and Toxicologist, Houston Police Department, received head hair and pubic hair from Case 73 - 3329, Dean Arnold Corll, hair samples (head) from Cases 73 - 3333, 73 - 3334 and 73 - 3335, and samples of both types of cord which was recovered.

  
James A. Zotter

  
Joseph A. Jachimczyk, M.D., J.D.  
Chief Medical Examiner



1973 MASS MURDER INVENTORY CASES TO DATE AS OF 071501

DR. DELATTRE VIEWED CASE: \_\_\_\_\_ CASE FINDINGS...SEE ATTACHED REPORT DATED \_\_\_\_\_

ITEM #	CASE #	DECEDENT'S NAME	TYPE OF REMAINS	LOCATION OF REMAINS	DATE FOUND	DATE ID'D & BY	WHAT METHOD
(2)	73-3333	Michael Anthony Baulch	W/M/age? grave #1	See Autopsy Report	8-8-73	10-9-73	See Supplement
FOUND@:		4500 Silverbell St. Stall #11, grave #1			Boatshed		ID Made by parents
NOK NOTIFIED:		(Y)/N			Decomp		Viewing dentals, clothing, photo positive comparison
DATE/TIME NOTIFIED:		10-9-73 Time (N/A)		NOTIFIED BY WHOM:		See 10/9/73 Supplement	
AUTOPSY DONE BY/DATE:		Dr. Sachimczyk		8-9-73			
INVESTIGATOR REPORT:		(Y)/N		AUTOPSY REPORT:		(Y)/N	
POLICE REPORT:		Y/(N)		SCENE PHOTOS:		Y/(N)	
DEATH CERTIFICATE:		(Y)/N		DATE D/C SIGNED:		10-17-73 - Billy Baulch, Sr Dad	

FULL BODY XRAYS:	(Y)/N	DENTAL CHART/XRAYS:	Y/(N)	DNA:	(Y)/N	RELEASE SIGNED:	Y/(N)
@ autopsy		See Autopsy Exam Done		9-27-73 letter		DATE:	Not in file
skeletal remains		By Dr. P.G. Stimson		Head/Pubic Hair		BY:	

TRANSFERRED TO HCME BY: Bob Lee FH

FUNERAL HOME: Heights

BURIED Woodlawn CREMATED Garden of memories

MANNER OF DEATH: GSW (3) of head

DOD: 8-21-73/autopsy report

SOURCE: HCME Records Dept + Investigator File

OTHER INFORMATION: No clothing, other than belt buckle

Compasses: 73-3332, 3334, 3335, 3336, 3337, 3338, 3339, 3347, 3348, 3349, 3350, 3353, 3354, 3355, 3356, 3357

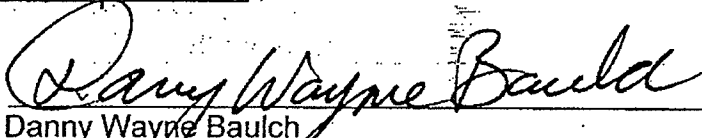
**AFFIDAVIT OF HEIRSHIP**

I, **DANNY WAYNE BAULCH**, hereby attest that the following is a true and correct representation of the line of heirship for my parents, **BILLY GENE BAULCH, SR. AND MAGGIE JANE BAULCH**, deceased.

During their marriage, **BILLY AND MAGGIE** had seven (7) children. Neither of them had any other children by any other marriage or union. Nor did they adopt any children, or take any children into their home with the understanding of adoption. Their children are listed below:

1. Marvin Lee Baulch, deceased
2. Billy Gene Baulch, Jr., deceased
3. Michael Anthony Baulch, deceased
4. Robert Clifton Baulch, deceased
5. Patricia Darlene Baulch Horacek
6. Debra Sue Baulch Hernandez
7. Danny Wayne Baulch

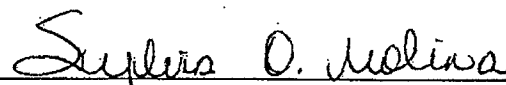
Executed this 28<sup>th</sup> day of Sept. 2010.

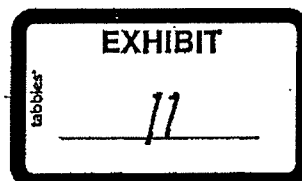
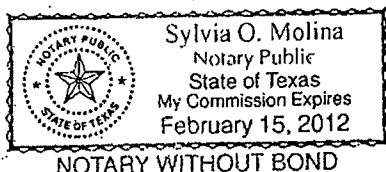
  
\_\_\_\_\_  
Danny Wayne Baulch

\*\*\*\*

State of Texas  
County of Innis

Before me, the undersigned authority, on this day personally appeared DANNY WAYNE BAULCH, known to me to be the person whose name is subscribed hereto, and who, upon his oath, did attest to the foregoing statements. Subscribed and sworn to before me on this 28<sup>th</sup> day of Sept. 2010.

  
\_\_\_\_\_  
Notary Public, State of Texas  
My Commission Expires: 02-15-2012



*Woodlawn*

Funeral Home, Inc.  
Garden of Memories Cemetery, Inc.  
Pre-Planned Funeral Services, Inc.

November 4, 2010

Dr. Sharon N. Derrick (HCIFS)  
1885 Old Spanish Trail Road  
Houston, TX 77054-2001

Dear Ms. Derrick:

Billy Gene Baulch, Jr. and Michael Anthony Baulch were interred into Space 8, Lot 171, Block 2 in Woodlawn Garden of Memories Cemetery on October 12, 1973.

The owner of the property described above is, B.G. Baulch.

Please call upon us if we may be of further assistance.

Sincerely,  
WOODLAWN GARDEN OF MEMORIES, INC.

*Jessica Oquendo*  
Jessica Oquendo  
Office Manager

JO/ef  
Enclosures





**DOD: 8/8/1973**

**WM - (18Y 4M)**

**RAUICH JR. BILLY GENE**

**ML73-3213**

RECORD OF IDENTIFICATION PROCESSING  
SKELETAL CHART

ML 73-3413

Unit #26

LAST NAME - FIRST NAME - MIDDLE INITIAL (or unknown number)

BLACK OUT PORTIONS NOT RECOVERED

GRADE SERVICE NUMBER

NAME OF CEMETERY, EVACUATION NUMBER, OR SEARCH AND RECOVERY NUMBER

PLOT ROW GRAVE

ESTIMATED AGE (Years) ESTIMATED HEIGHT  
21-23 63 1/2 - 66 inches

SKELETAL MEASUREMENTS (Centimeters)

SKELETAL MEMBER	METHOD	RIGHT	LEFT
SKULL			
HUMERUS			
ULNA			
RADIUS			
FEMUR			
TIBIA			
FIBULA			

REMARKS OR STATEMENT OF ANTHROPOLOGIST (Continue on reverse if more space is required)

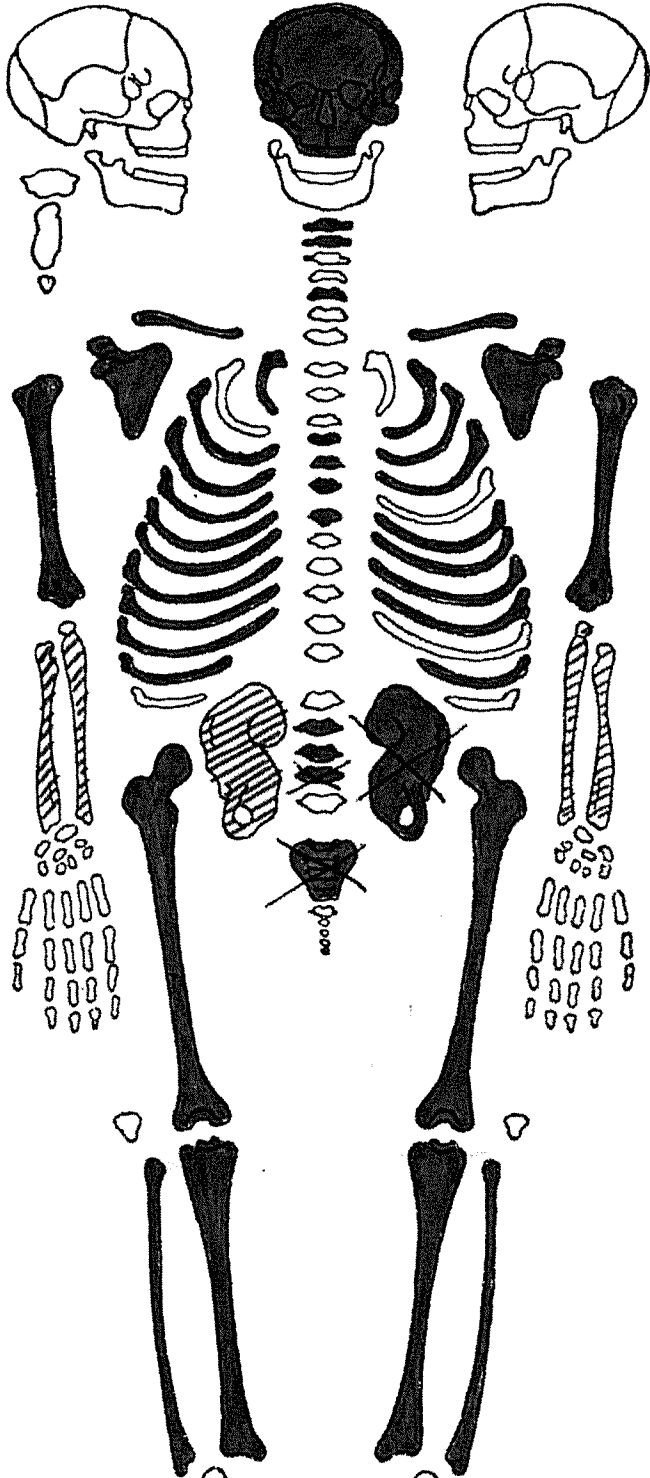
Dorsal arch of one lumbar vertebra missing.  
- Symmetrical - possible spina bifida?

10-11-73 Note (1) Age based on l. pelvis does not fit this decedent, Age of right pelvis is consistent with age 17. Correct pelvis placed & remains this date. (2) Radius & ulna (R&L) added this date. Bone structure, size & elbow articulation fit this body. See dictated note this date.

THE PARTS PRESENT AS INDICATED ON THIS SKELETAL CHART REPRESENTS ONE AND THE SAME INDIVIDUAL

PHYSICAL ANTHROPOLOGIST (Name)

SIGNATURE



SYMBOLS  
 MISSING  
 BURNED

FRACTURED   
 SHATTERED

HARRIS COUNTY INSTITUTE OF FORENSIC SCIENCES  
1885 OLD SPANISH TRAIL  
HOUSTON, TEXAS 77054-2001

Sharon M. Derrick, Ph.D.  
Forensic Anthropologist

ML73-3413

**REPORT OF ANTHROPOLOGY CONSULTATION**

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**CASE NUMBER:** ML73-3413 (formerly IO11-00556)  
**NAME:** Billy Gene Baulch, Jr.  
**PATHOLOGIST:** Joseph A. Jachimczyk, MD, G. Sheldon Green, MD and  
Dwayne A. Wolf, MD, PhD  
**DATE (analyzed):** March 11-14, 2011

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On February 10, 2011, Dr. Wolf, Deputy Chief Medical Examiner, requested a skeletal profile and trauma analysis review of the skeletal remains of ML73-3413 (IO11-00556). The remains were exhumed from Woodlawn Cemetery, 1101 Antoine Drive, Houston, Texas under Order Number 2010-83010 from Harris County District Court 151. The exhumation was performed on February 8, 2011 to examine ML73-3333 and ML73-3413 for collection of anthropological and DNA data. See the original autopsy reports for ML73-3333 and ML73-3413 included in the current case files and the Case Background section below for detailed information on these cases. Two discrete body bags containing skeletal remains were recovered from within a single casket. The remains were immediately transferred to the HCIFS Morgue, received through the check-in process, and placed in the Anthropology Laboratory. Although the remains were believed to be those of ML73-3333 and ML73-3413, the cases were assigned inquest numbers (IO11-00555 and IO11-00556, respectively) at check-in.

As a result of the shallow water table geology of the Houston area, the two body bags were submerged in muddy water within the casket. The water had leaked through the zippers, resulting in waterlogged and softened skeletal elements. Further, mineral deposits had precipitated from the water to coat the majority of the bone surfaces. The elements of each set of remains were washed individually in cool water, reconstructed, ordered, and placed in anatomical position on an examination table to dry.



Billy Gene Baulch, Jr.  
Report of Anthropology Consultation  
ML73-3413  
-2-

IO11-00555 and IO11-00556 were assessed for the minimum number of individuals present and for evidence of possible commingling of the decedents placed in the casket in 1973. The remains were also compared with photographs and inventory documentation from the ML73-3333 and ML73-3413 case files. IO11-00555 represents the nearly complete skeletal remains of one individual and is consistent with the archived photo and record documentation of ML73-3333. IO11-00556 is comprised of a minimum of two commingled individuals (see Inventory below), but is consistent with the archived photo and record documentation of ML73-3413. Therefore, IO11-00555 is reassigned case number ML73-3333 and IO11-00556 is reassigned case number ML73-3413.

ML73-3413 was examined grossly and with a stereomicroscope when appropriate, measured and photographed. Elements representing a second individual were removed and submitted to the University of North Texas Center for Human Identification (UNT) for DNA analysis (see Inventory below). Following the examination, ML73-3413 was placed in a box labeled with the case number and returned to the HCIFS Morgue refrigeration unit.

#### Case Background

ML73-3333 and ML73-3413 are two of 27 companion cases recovered from three locations during a serial murder investigation in August 1973. The partially fleshed, articulated remains of ML73-3333 were recovered on August 8, 1973 from the dirt floor of a storage facility in southwest Houston. The disarticulated skeletal remains of ML73-3413 were recovered from a burial site on a beach in Chambers County on August 13, 1973.

ML73-3333 and ML73-3413 were identified through circumstantial evidence on October 9, 1973 as brothers Michael Anthony Baulch and Billy Gene Baulch, Jr. (see Identification section below). The remains were released to the funeral home on October 10. The family chose to place the decedents within the same casket for burial in the Woodlawn Cemetery.

ML73-3333 was misidentified as Michael Baulch in 1973. The misidentification was discovered in 2010 during the ongoing Forensic Anthropology Division review of

Billy Gene Baulch, Jr.  
Report of Anthropology Consultation  
ML73-3413  
-3-

unidentified decedent cases. ML73-3378, a companion case recovered from a Lake Sam Rayburn beach on August 9, 1973 was subsequently identified as Michael Baulch by DNA comparison. See Identification below. The identity of ML73-3333 is unknown at this time (see Anthropology Report ML73-3333).

### Inventory

The remains of ML73-3413 represent a minimum of two individuals. The first individual, identified as Billy Baulch, is represented by approximately 60% of the skeleton. The following elements are absent.

Mandible  
Right ribs 1-2 and 11-12  
Left ribs 8 and 10-12  
Manubrium, corpus sterni, and xiphoid process  
Cervical vertebra 3  
Three mid-range cervical vertebrae  
Nine mid-range through lower range thoracic vertebrae  
Lumbar vertebrae 2-5  
Sacrum  
Right innominate  
Right patella  
Left patella  
Right carpals (7), right hamate is present  
Right metacarpals 1-5  
All phalanges of the right hand  
Left ulnar epiphysis  
Left carpals (8)  
Left metacarpals 1-5  
All phalanges of the left hand  
Right tarsals (7)  
Right metatarsals 1-5  
All phalanges of the right foot  
Left tarsals (7)  
Left metatarsals 1-4

Billy Gene Baulch, Jr.  
Report of Anthropology Consultation  
ML73-3413  
-4-

Left metatarsal 5, retained in 1973 and submitted for DNA analysis in 2006)  
All phalanges of the left foot

The following elements are inconsistent in size, general morphology, and/or age with the majority of the remains. These elements, representing a minimum of one individual, were examined and photographed prior to removal for DNA analysis. A case number(s) will be assigned to the remains after receipt of DNA results.

- Right innominate: the right innominate is more robust than the left, and the size of the acetabulum is not a good fit for the right femoral head. The left innominate and left femur articulate well. DNA analysis of the left innominate indicates that the left innominate likely belongs to Billy Baulch (see Identification section below).
- One mid-range thoracic vertebra, one upper range lumbar vertebra, and one mid-range lumbar vertebra. The rims of the centra are more developed than those of the other vertebrae, and may represent an older individual. The lumbar vertebrae centra also contain Schmorl's nodes, inconsistent with the healthy centrum faces of the other vertebrae. DNA analysis indicates the more youthful vertebrae belong to Billy Baulch (see Identification section below).
- One right second or third rib. The rib is noticeably more robust than the upper range ribs of the left side.

#### Skeletal Profile

The following profile was obtained from the remains determined by comparison of morphology, growth, and development to belong to the same individual and to represent the majority of ML73-3413. The results are consistent with the missing person description of Billy Gene Baulch, Jr. (17 years old at disappearance on 5/21/1972, DOB: 04/21/1955, White male, estimated 5'9" tall) obtained from the original autopsy report supplement, dated October 8-9, 1973, in which ML73-3413 was identified as Billy Gene Baulch, Jr.

- Age: 16-19 years
- Ancestry: White, with possible Native American admixture
- Sex: Male
- Stature: 62.0"-68.6" (5'3" - 5'9")

### Age

The decedent is an adolescent of an estimated 16-19 years based on epiphyseal fusion, age-related morphology of the sternal end of the fourth rib and the pubic symphysis, dental development, and general skeletal size.

The remains are large enough in general size to represent an adult individual. However, the pattern of epiphyseal fusion is consistent with an adolescent that has not yet attained full adult skeletal growth and development. The following epiphyses are in a stage of partial union. The age range estimates for fusion follow Scheuer and Black.

- Basilar suture (range 13-18 years)
- Posterior atlas, likely an anomaly, fuses at approximately 4-5 years
- Rib heads (range 17-25 years)
- Thoracic vertebral rims (range puberty to early 20s)
- Lumbar vertebral rim (range puberty to early 20s)
- Ischial tuberosity (<20 years)
- Iliac crest (17-20 years)
- Head of humerus (16-20 years)
- Medial epicondyle of humerus (14-16 years)
- Distal radius (16-20 years)
- Distal ulna (17-20 years)
- Head of femur (15-19 years)
- Distal femur (16-20 years)
- Proximal tibia (15-19 years)

The age-related morphology of the left fourth rib is consistent with Phases 0-1a (male) of the Iscan model, corresponding to an age range of <17-19 years. In cross-section the rib end is smooth and minimally convex, with no development of the rim observed. Age-related morphology of the left pubic symphysis face corresponds to male Phase I-1 of the Suchey-Brooks method, with a range of 15-23 and a mean of 18.5 years of age. The symphyseal face is somewhat eroded as a result of taphonomic processes but there is clear absence of upper and lower delimitation accompanied by the presence of marked ridges and furrows.

The dentition is consistent with that of an adolescent. The maxillary third molars, teeth 1 and 16, are in an early stage of eruption. The roots have developed to approximately  $\frac{3}{4}$  of the full length and are open at the apices. Although development and eruption of the third molars is variable, this stage has been described by Smith as consistent with a mean age of 16.4 years. The dentition is described more fully under the Dentition section below.

#### Ancestry

ML73-3413 is estimated as White with possible Native American admixture based on metric and morphological analyses. Cranial and postcranial measurements for ML73-3413 were entered into FORDISC 3.1, a multidiscriminant function software program. FORDISC 3.1 compared the measurements with those compiled in the Forensic Database and provided the following classification results:

- White male, based on 39 postcranial measurements compared with males and females in the Forensic Database (posterior probability=0.998, typicality probability=0.657, and a low typicality Chi=0.040).
- White male, based on stepwise comparison of 5 postcranial measurements also compared with both males and females (posterior probability=0.478, typicality probability=0.450, typicality Chi=0.414). The decedent is an adolescent. Comparison with only male measurements results in an inconclusive classification.
- White male, based on 17 cranial measurements compared with all individuals in the Forensic Database (posterior probability = 0.774, typicality probability =0.345, typicality Chi=0.265).
- White male, based on stepwise comparison of 11 cranial measurements with males only (posterior probability=0.645, typicality probability=0.677, typicality Chi=0.645).

The morphological method of ancestry estimation for ML73-3413 follows the Gill and Rhine model. Characteristics of the cranium associated with White populations observed in the decedent include: small retreating zygomatics, a sharp protruding nasal sill, a narrow nasal aperture, high arched nasal bones, and little alveolar prognathism. Characteristics of the cranium associated with Native American populations observed include: a low sloping skull shape, rounded and high skull

height, broad and flat facial shape, square eye orbits, angled zygomaxillary sutures, a markedly elliptic palate shape, straight palatal suture, and a lack of crowding in the dentition. The femur curvature is uninformative for ancestry because it differs between the left femur (arched) and the right femur (little arching).

In addition to the Gill and Rhine skeletal morphology model, non-metric traits of the maxillary dentition are supportive of White ancestry/Native American admixture. The Carabelli's cusp trait is frequently expressed in males of European descent while the shovel shaped incisor trait is infrequently expressed. Conversely, the shovel shaped incisor trait is frequently expressed in populations of Asian descent, such as Native Americans. The Carabelli's cusp trait is infrequently expressed in these populations. Research on the genetic basis for expression of these traits is published in the current dental and anthropological literature. Both traits are observed in the maxillary dentition of ML73-3413, suggesting a possible combination of White and Asian/Native American ancestry. See the Dentition section below for further description.

#### Sex

The decedent is estimated as male based on results from the FORDISC 3.1 cranial and postcranial analyses described under Ancestry, the diameter of the humeral and femoral heads, the morphology of the cranium using the Buikstra and Ubelaker model, and the structure of the pelvis following the Phenice model.

The male characteristic of marked extension of the zygomatic arch past the external auditory meatus is observed in the cranium. The majority of the cranial characteristics are either indeterminate or female in expression, likely due to the young developmental age of the decedent. Male characteristics observed in the postcranial skeleton include features of the pelvis (a narrow sciatic notch, absence of a ventral arc, subpubic convexity, absence of ischiopubic concavity, short pubic length, and a flat sacral attachment), humeral head diameters greater than 47.2 mm and femoral head diameters of 47 mm and 48 mm.

#### Stature

Living stature is estimated using FORDISC 3.1 comparison of postcranial measurements from the decedent with those of White males compiled in the Forensic



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Database. FORDISC 3.1 calculates an estimated stature range of 62.0"-68.6" (5'2"-5'9").

### Trauma

#### *Antemortem:*

An investigator supplement to the ML73-3413 autopsy report notes that "An X-ray of Billy Baulch's left elbow...revealing a fracture which occurred in 1966" was turned over to H.C. Gregory of the Harris County Morgue. This radiograph is not available for review. No fracture scars are observed on the distal left humerus or the proximal left radius and ulna. Instead, a very subtle well-healed fracture scar is observed on the distal left radius. Due to the fact that the elbow injury occurred approximately five years prior to death and the decedent was 11 years old at the time, it is possible that the fracture line is no longer visible.

#### *Perimortem:*

No perimortem injury is described in the ML73-3413 autopsy report. Due to taphonomic processes of burial and periodic submersion in water for 38 years, perimortem injury to the skeleton cannot be reliably distinguished from postmortem damage.

#### *Postmortem:*

The maxillary dental arch was removed with an autopsy saw for identification purposes at the original examination. Crumbling of the fragile nasal bones, ethmoid, and vomer is observed. A small round defect in the superior right scapular blade is consistent with puncture of the delicate blade in an anatomically anterior to posterior direction. The elements are coated with residual quick-lime (noted at autopsy) as well as the precipitated mineral sheets described above. The cortical surfaces of the morphological features are somewhat eroded. A complete transverse fracture of left rib 9 occurred during cleaning of the elements for examination.

### Pathology and Individualizing Characteristics

No pathological conditions are observed. The following individualizing characteristics are present: retained metopic suture of the frontal bone and incomplete fusion of the first cervical vertebra posterior rim.

### Dentition

The mandible was not recovered in 1973 and is absent at this examination. All maxillary teeth were present in the dental arcade at recovery in 1973. Teeth 8-12 are absent postmortem at this examination but are documented in the original autopsy report and photographs. The dentition is relatively healthy and no reconstructions are observed. A Carabelli's cusp (accessory cusp that may develop on the mesiolingual cusp of the maxillary first molar) is observed on teeth 3 and 14. Tooth 7 is shovel-shaped (presence of lingual marginal ridges resulting in a concave lingual surface).

Dr. Paul G. Stimson notes caries on teeth 2-3 and 14-15 during his examination of the maxillary dentition in 1973. These caries are observed as pits within the grooves around the occlusal cusps. Dr. Stimson also notes chipping and excessive wear on tooth 9 but tooth 9 is now absent. See Dental Examination on page 4 of the ML73-3413 autopsy report.

### Postmortem Interval

At the time of original skeletal recovery from a shallow sandy beach grave in August 1973, Billy Baulch had been missing since May 21, 1972 (14 months). The remains were coated with lime and wrapped in heavy plastic. The condition of the remains at recovery was described in the ML73-3413 autopsy report as, "skeletal remains...with the flesh nearly completely deteriorated away." Photographs depict disarticulated elements, fully exposed bone, and minimal amounts of adherent tissue. Given the circumstances of deposition, the decomposition stage is consistent with a postmortem interval of one to two years.

### Identification

ML73-3413 was identified in 1973 as Billy Gene Baulch, Jr. based on the following evidence.

- Recognition of the head hair by parents, Mr. and Mrs. Billy Gene Baulch, Sr.
- Recognition of the anterior teeth by Mr. and Mrs. Baulch, particularly the "pointed canines" and a chip in the occlusal surface of tooth 9.
- Review of an antemortem photo of Billy Baulch that shows the anterior teeth in comparison with the maxillary dental arcade of ML73-3413 and also with Dr. Paul Stimson's (forensic odontologist) dental chart and description

- Review of a radiograph of Billy Baulch's left elbow (no results documented)

DNA sampling and profile comparison were completed as a part of the current examination. Buccal swabs were obtained from Debra Baulch Hernandez, sister of Billy and Michael Baulch. The DNA profile obtained from the swabs was compared with both mitochondrial and nuclear DNA profiles obtained from the left innominate, one upper range lumbar vertebra, and the left fifth metatarsal of the ML73-3413 remains, and the cranium and ribs of ML73-3378. The following statistical conclusions were reported by UNT.

- It is 820 million times more likely that ML73-3413 is a sibling of Debra Sue Baulch Hernandez than if the decedent is unrelated to her.
- It is 10,000 times more likely that ML73-3378 (identified as Michael Baulch) is another biological sibling of Debra Sue Baulch Hernandez than if the decedent is unrelated to her.
- It is at least 379 times more likely that ML73-3413 and ML73-3378 are related as siblings than if they are unrelated.

The DNA profile comparisons are consistent with identification of ML73-3413 and ML73-3378 as Billy and Michael Baulch, respectively. ML73-3413 is identified as Billy and ML73-3378 is identified as Michael due to consistencies in disappearance dates and decomposition stages. Billy disappeared 14 months prior to the recovery of ML73-3413. The decomposition stage at recovery described above is consistent with that postmortem interval. Michael disappeared on July 17, 1973, only three weeks prior to the recovery of ML73-3378 in an articulated and fleshed state.

#### Summary

The skeletal remains of ML73-3413 are estimated to represent a White male, 16-19 years of age and 5'2"-5'9" inches tall. ML73-3413 is identified as Billy Gene Baulch, Jr. through DNA profile comparison, development of a consistent biological profile, decomposition stage at recovery, and circumstantial evidence. The remains of Billy Baulch are commingled with skeletal elements representing a minimum of one additional individual. These elements have been examined and submitted to UNT for DNA analysis. With the exception of the commingling and observation of a well-healed fracture scar on the distal left ulna, the anthropological findings are consistent with the

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autopsy findings in the report filed on August 14, 1973. No perimortem skeletal trauma or pathological conditions are observed.

Sharon M. Derrick 6/30/2011  
Sharon M. Derrick, Ph.D. MMDDYY  
Forensic Anthropologist

Reviewed by:

Jennifer C. Love 6/30/2011  
Jennifer C. Love, Ph.D., D-ABFA MMDDYY  
Forensic Anthropology Director



Harris County Institute of Forensic Sciences  
Forensic Anthropology Division  
Data Sheets



(1011-00556)

Case # ML73-3413 Anthropologist S. Derrick  
Date/Hour of Examination 3/11/2011 - 3/14/2011  
Pathologist Sachimczyk County Harris

Scene Description

Exhumation from buried casket. Ground water seepage  
Woodlawn Cemetery, 2/8/2011, Order # 2010-83010

Condition of Remains

Friable, muddy, mineral deposits, very wet, soft

Processing Procedure

Elements were handwashed in cool water and air-dried  
on trays.

Personal Property

None

Positively Identified (by) HCIFS/UNT <sup>DNA results</sup> (technique) DNA (mito + nuclear)

Decedent Name Billy Gene Baulch, Jr., WM17, 5'9", 145lbs (description)

Unidentified Checklist:

Dental Chart

- Anthropologist
- Odontologist
- Edentulous

Radiographs N/A, Identified Case

- Articulated
- Disarticulate
- Dental → previously done by Dr. Stinson  
no electronic copies available  
identified

DNA

- UNT
- HCME Lab Archives

Photographs

- Skeletal Overview
- Biological Profile
- Reconstruction
- Trauma

N/A Radiographs Identified

Dissemination N/A, Identified Case

- Law Enforcement
- Media
- NCMEC # \_\_\_\_\_
- NCIC # \_\_\_\_\_
- NamUs # \_\_\_\_\_

Update Databases N/A 80

- Justice Tracks
- Anthropology Logbook





*Used left side measurements  
in FORDIC when possible*

CRANIAL MEASUREMENTS (Pages 52-60)

		Left	Right
1. MAXIMUM LENGTH (g-op):	<u>185</u>		
2. MAXIMUM BREADTH (eu-eu):	<u>135</u>		
3. BIZYGOMATIC BREADTH (zy-zy):	<u>132</u>		
4. BASION-BREGMA (ba-b):	<u>137</u>		
5. CRANIAL BASE LENGTH (ba-n):	<u>103</u>		
6. BASION-PROSTHION L. (ba-pr):	<u>99*</u>		
7. MAX.-ALVEOLAR BR. (ecm-ecm):	<u>62*</u>		
8. MAX.-ALVEOLAR L. (pr-alv):	<u>54*</u>		
9. BIAURICULAR BREADTH (ALB):	<u>119</u>		
10. UPPER FACIAL HGT. (n-pr):	<u>63*</u>		
11. MIN. FRONTAL BR. (ft-ft):	<u>97</u>		
12. UPPER FACIAL BR. (fmt-fmt):	<u>104</u>		
13. NASAL HEIGHT (n-ns):		<u>48*</u>	
14. NASAL BREADTH (al-al):		<u>23*</u>	
15. ORBITAL BREADTH (d-ec):		<u>44</u>	
16. ORBITAL HEIGHT (OBH):		<u>30</u>	
17. BIORBITAL BR. (ec-ec):		<u>97</u>	
18. INTERORBITAL BR. (d-d):		<u>21</u>	
19. FRONTAL CHORD (n-b):		<u>107</u>	
20. PARIETAL CHORD (b-1):		<u>121</u>	
21. OCCIPITAL CHORD (l-o):		<u>94</u>	
22. FORAMEN MAGNUM L. (ba-o):		<u>36</u>	
23. FORAMEN MAGNUM BR (FOB):		<u>33</u>	
24. MASTOID LENGTH (MDH):		<u>30</u>	<u>30</u>

MANDIBULAR MEASUREMENTS (Pages 61-63)

*No mandible*

	Left	Right		Left	Right
25. CHIN HEIGHT (gn-id):	---	---	30. MIN. RAMUS BREADTH:	---	---
26. BODY HEIGHT at MENTAL FOR:	---	---	31. MAX. RAMUS BREADTH:	---	---
27. BODY THICKNESS at M. FOR:	---	---	32. MAX. RAMUS HEIGHT:*	---	---
28. BIGONIAL DIAMETER (go-go):	---	---	33. MAND. LENGTH:*	---	---
29. BICONDYLAR BR. (cdl-cdl):	---	---	34. MAND. ANGLE:*	---	---

\* Record only if mandibulometer is used.

POSTCRANIAL MEASUREMENTS (Pages 64-76)

CLAVICLE: Epiph. P/A:	Left	Right	INNOMINATE: Epiph. P/A:	Left	Right	<i>(not likely to belong to case)</i>
35. MAXIMUM LENGTH:	<u>146</u>	<u>151</u>	56. HEIGHT:	<u>207</u>	<u>209</u>	
36. SAGITTAL DIAM. at MIDSH:	<u>15</u>	<u>14</u>	57. ILIAC BREADTH:	<u>154</u>	<u>156</u>	
37. VERTICAL DIAM. at MIDSH:	<u>10</u>	<u>10</u>	58. PUBIS LENGTH:	<u>79</u>	<u>85</u>	
			59. ISCHIUM LENGTH:	<u>78</u>	<u>79</u>	
SCAPULA: Epiph. P/A:	Left	Right	FEMUR: Epiph. P/A:	Left	Right	
38. HEIGHT:	<u>146</u>	<u>148</u>	60. MAXIMUM LENGTH:	<u>431</u>	<u>434</u>	
39. BREADTH:	<u>101</u>	<u>102</u>	61. BICONDYLAR LENGTH:	<u>429</u>	<u>429</u>	
HUMERUS: Epiph. P/A:	Left	Right	62. EPICONDYLAR BREADTH:	<u>81</u>	<u>80</u>	
40. MAXIMUM LENGTH:	<u>313</u>	<u>315</u>	63. MAX. DIAM. of HEAD:	<u>47</u>	<u>48</u>	
41. EPICONDYLAR BREADTH:	<u>61</u>	<u>62</u>	64. A-P SUBTROCH. DIAMETER:	<u>29</u>	<u>29</u>	
42. MAX. VERT. DIAM. of HEAD:	<u>48</u>	<u>48</u>	65. TRANSV. SUBTROCH. DIAM:	<u>32</u>	<u>32</u>	
43. MAX. DIAM. at MIDSHAFT:	<u>24</u>	<u>24</u>	66. A-P DIAM. MIDSH:	<u>26</u>	<u>26</u>	
44. MIN. DIAM. at MIDSHAFT:	<u>18</u>	<u>19</u>	67. TRANSV. DIAM. MIDSH:	<u>28</u>	<u>29</u>	
			68. CIRCUMFERENCE AT MIDSH:	<u>90</u>	<u>90</u>	
RADIUS: Epiph. P/A:	Left	Right	TIBIA: Epiph. P/A:	Left	Right	
45. MAXIMUM LENGTH:	<u>243</u>	<i>open epiph</i>	69. CONDYLO-MALLEOLAR LEN:	<u>366</u>	<u>367</u>	
46. SAGITTAL DIAM. at MIDSH:	<u>12</u>	<u>12</u>	70. MAX. PROX. EPIPH. BR:	<u>77</u>	<u>77</u>	
47. TRANSV. DIAM. at MIDSH:	<u>16</u>	<u>16</u>	71. MAX. DIST. EPIPH. BR:	<u>52</u>	<u>52</u>	
ULNA: Epiph. P/A:	Left	Right	72. MAX. DIAM. NUTRIENT FOR:	<u>38</u>	<u>38</u>	
48. MAXIMUM LENGTH:	<i>no epiph.</i>	<u>261</u>	73. TRANSV. DIAM. NUTR. FOR:	<u>24</u>	<u>24</u>	
49. DORSO-VOLAR DIAMETER:	<u>16</u>	<u>16</u>	74. CIRCUM. AT NUTR. FOR:	<u>100</u>	<u>100</u>	
50. TRANSVERSE DIAMETER:	<u>15</u>	<u>15</u>	FIBULA: Epiph. P/A:	Left	Right	
51. PHYSIOLOGICAL LENGTH:	<i>no epiph.</i>	<u>240</u>	75. MAXIMUM LENGTH:	<u>360</u>	<u>363</u>	
52. MIN. CIRCUMFERENCE:	<u>40</u>	<u>40</u>	76. MAX. DIAM. at MIDSHAFT:	<u>17</u>	<u>18</u>	
SACRUM: No. Segments: <i>Absent</i>	---	---	CALCANEUS: Epiph. P/A: <i>Absent</i>	Left	Right	
53. ANTERIOR HEIGHT:	---	---	77. MAXIMUM LENGTH:	---	---	
54. ANTERIOR SURFACE BREADTH:	---	---	78. MIDDLE BREADTH:	---	---	
55. MAX. BREADTH (S-1)	---	---				

\* = reconstructed

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DF results using 39 variables:

CLAAPD	CLAVRD	CLAXLN	FEMBLN	FEMCIR	FEMEBR
FEMHDD	FEMMAP	FEMMTV	FEMSAP	FEMSTV	FEMXLN
FIBMDM	FIBXLN	HUMEBR	HUMHDD	HUMMWD	HUMMXD
HUMXLN	ILIABR	INNOHT	ISCHLN	PUBCLN	RADAPD
RADTVD	RADXLN	SCAPBR	SCAPHT	TIBCIR	TIBDEB
TIBNFT	TIBNFX	TIBPEB	TIBXLN	ULNCIR	ULNDVD
ULNPHL	ULNTVD	ULNXLN			

From Group	Total Number	Into Group				Percent Correct
		BF	BM	WF	WM	
BF	18	14	1	3	0	77.8 %
BM	35	0	32	0	3	91.4 %
WF	55	4	0	50	1	90.9 %
WM	102	3	6	0	93	91.2 %

Total Correct: 189 out of 210 (90.0 %) \*\*\* CROSSVALIDATED \*\*\*

Multigroup Classification of Current Case

Group	Classified into	Distance from	Probabilities			
			Posterior	Typ F	Typ Chi	Typ R
WM	**WM**	55.7	0.998	0.657	0.040	0.304 (71/103)
BM		68.2	0.002	-----	0.003	0.057 (33/36)
BF		73.0	0.000	-----	0.001	0.053 (18/19)
WF		78.7	0.000	0.913	0.000	0.018 (56/56)

Current Case is closest to WMs

Current Case	Chk	Group Means				
		BF 18	BM 35	WF 55	WM 102	
CLAAPD	15	+	11.1	13.8	10.4	12.8
CLAVRD	10		9.7	11.1	9.3	11.3
CLAXLN	146		140.8	159.5	139.0	156.8
FEMBLN	429	-	434.4	479.9	431.1	469.2
FEMCIR	90		80.5	93.1	82.0	92.2
FEMEBR	81		72.4	83.2	75.7	85.0
FEMHDD	47		40.8	47.2	42.3	48.4
FEMMAP	26	-	27.2	31.5	27.4	30.9
FEMMTV	28		23.8	28.0	24.3	27.8
FEMSAP	29	+	25.1	28.7	25.9	28.7
FEMSTV	32		28.3	32.1	29.2	32.1
FEMXLN	431	-	438.9	483.6	435.2	472.5
FIBMDM	17	+	13.8	15.3	14.5	15.8
FIBXLN	360		357.3	395.7	350.8	385.7
HUMEBR	61		54.4	64.2	55.9	64.5
HUMHDD	48		40.3	46.7	42.8	48.6
HUMMWD	18		15.9	19.3	15.5	18.8
HUMMXD	24	+	20.2	23.7	20.0	23.3
HUMXLN	313		304.8	340.4	304.1	335.5
ILIABR	154		142.1	153.6	155.6	160.2
INNOHT	207		189.3	211.0	202.4	223.0
ISCHLN	78		77.5	88.9	81.8	91.0
PUBCLN	79		75.0	76.0	85.3	82.7
RADAPD	12		11.4	13.0	10.4	12.9
RADTVD	16		13.3	16.0	13.7	16.6
RADXLN	243		235.2	266.9	227.8	252.9
SCAPBR	101		94.1	111.1	95.8	108.0
SCAPHT	146		137.1	160.8	141.9	163.0
TIBCIR	100		86.4	100.5	85.9	97.8
TIBDEB	52		45.4	51.8	46.5	52.2
TIBNFT	24		22.9	26.6	22.1	25.5

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FORDISC 3.1 Analysis of Current Case

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TIBNFX	38	+	31.3	36.7	32.0	36.5
TIBPEB	77		68.3	78.3	69.8	78.9
TIBXLN	366		363.7	403.4	356.9	391.6
ULNCIR	40	+	32.4	37.4	34.0	37.9
ULNDVD	16	+	12.6	15.7	12.0	15.4
ULNPHL	240		224.2	253.8	216.8	239.8
ULNTVD	15		13.4	15.9	13.3	16.3
ULNXLN	261		252.2	285.0	244.3	271.1

---

Natural Log of Determinant = 79.9389

DF results using 5 Forward % selected (min: 1 max: 20, out of 39) variables:

INNOHT RADXLN TIBPEB ILIABR SCAPHT

From Group	Total Number	Into Group				Percent Correct
		BF	BM	WF	WM	
BF	18	16	0	1	1	88.9 %
BM	35	1	33	0	1	94.3 %
WF	55	4	0	51	0	92.7 %
WM	102	3	10	3	86	84.3 %

Total Correct: 186 out of 210 (88.6 %) \*\*\* CROSSVALIDATED \*\*\*

Multigroup Classification of Current Case

Group	Classified into	Distance from	Probabilities			Typ Chi	Typ R
			Posterior	Typ F	Typ R		
WM	**WM**	5.0	0.478	0.450	0.414	0.451 (56/103)	
BF		6.4	0.238	0.494	0.269	0.056 (17/19)	
BM		7.1	0.170	0.327	0.215	0.257 (26/36)	
WF		7.9	0.114	0.228	0.163	0.036 (53/56)	

Current Case is closest to WMs

Group Means

Current Case	Chk	Group Means			
		BF 18	BM 35	WF 55	WM 102
INNOHT	207	189.3	211.0	202.4	223.0
RADXLN	243	235.2	266.9	227.8	252.9
TIBPEB	77	68.3	78.3	69.8	78.9
ILIABR	154	142.1	153.6	155.6	160.2
SCAPHT	146	137.1	160.8	141.9	163.0

Natural Log of Determinant = 19.3565

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*Handwritten:* P.7 of 14

*Handwritten:* mc73-3413  
J. Derrick

**FORDISC 3.1 Analysis of Current Case**  
 DF results using 17 variables:  
 AUB BBH BNL BPL FRC GOL MAB NLB NLH OBB  
 OBH OCC PAC UFHT WFB XCB ZYB  
 Variables removed: UFBR MDH MAL DKB EKB FOL FOB

From Group	Total Group Number	AF	AM	BF	BM	CHM	GTM	HF	HM	JF	JM	VM	WF	WM	Percent Correct
AF	29	11	7	1	0	1	2	3	1	0	0	1	2	0	37.9 %
AM	51	3	33	0	1	4	2	1	1	1	2	2	0	1	64.7 %
BF	70	2	0	38	4	0	4	8	3	3	0	1	6	1	54.3 %
BM	95	4	1	9	52	6	1	2	6	3	4	2	0	5	54.7 %
CHM	69	4	0	0	8	33	3	1	2	1	11	5	0	1	47.8 %
GTM	68	7	3	3	2	0	41	5	2	0	2	2	1	0	60.3 %
HF	42	1	0	3	2	1	5	22	0	2	1	3	4	0	52.4 %
HM	166	13	7	2	16	15	25	15	30	1	17	9	2	14	18.1 %
JF	118	0	0	4	0	2	0	0	0	112	0	0	0	0	94.9 %
JM	168	5	10	0	4	21	10	8	6	2	82	14	2	4	48.8 %
VM	48	0	0	0	0	4	3	6	0	2	4	29	0	0	60.4 %
WF	160	1	0	7	0	1	0	8	1	0	2	3	122	15	76.3 %
WM	261	6	2	1	8	5	0	3	1	0	14	2	19	200	76.6 %

Total Correct: 805 out of 1345 (59.9 %) \*\*\* CROSSVALIDATED \*\*\*

**Multigroup Classification of Current Case**

Group	Classified into	Distance from	Posterior	Typ F	Typ Chi	Typ R
WM	**WM**	20.2	0.774	0.345	0.265	0.406
WF		24.5	0.090	0.209	0.107	0.131
BM		25.7	0.049	0.255	0.080	0.147
AM		27.2	0.023	0.419	0.055	0.176
AF		27.3	0.022	0.785	0.054	0.069
CHM		28.3	0.013	0.257	0.041	0.029
HM		28.7	0.011	0.097	0.038	0.096
JM		29.3	0.008	0.085	0.032	0.012
JF		29.7	0.007	0.111	0.029	0.008
BF		31.9	0.002	0.163	0.015	0.014
HF		33.5	0.001	0.349	0.010	0.023
GTM		36.4	0.000	0.097	0.004	0.014
VM		37.9	0.000	0.184	0.003	0.020

**Current Case is closest to WMS**

Current Case	Chk	AF	AM	BF	BM	CHM	GTM	HF	HM	JF	JM	VM	WF	WM
AUB	119	125.6	132.1	115.6	120.7	123.9	123.7	119.0	124.1	112.0	125.7	122.8	116.4	123.2
BBH	137	129.6	133.4	131.2	137.3	139.7	133.2	131.7	136.5	132.6	138.8	137.8	134.1	141.9

P.7 of 14

FORDISC 3.1 Analysis of Current Case

3/17/2011 9:55:06 AM

BNL	103	99.9	103.0	98.3	104.4	100.3	98.5	95.6	100.8	95.2	101.5	97.6	99.2	106.3
BPL	99	96.7	100.1	98.8	104.4	97.1	97.9	93.0	98.7	94.2	97.7	95.4	92.2	98.0
FRC	107	107.6	110.8	107.8	112.6	113.2	106.5	106.4	110.9	107.1	112.6	112.1	109.2	114.8
GOL	185	177.3	180.1	178.0	186.8	181.2	173.2	171.2	178.0	171.6	180.1	172.4	177.5	187.9
MAB	62	62.8	66.2	62.5	66.2	65.4	64.5	62.6	65.4	61.6	65.5	66.4	58.0	61.7
NLB	23	25.4	26.1	25.0	26.3	25.9	25.5	24.0	24.9	24.8	25.1	26.2	22.3	23.7
NLH	48	-	51.5	53.8	48.1	52.4	52.3	51.8	49.3	52.1	48.2	52.6	53.1	48.9
OBB	44	+	40.7	42.2	38.4	40.6	38.8	38.9	38.8	39.9	38.1	39.2	38.4	41.2
OBH	30	--	35.1	35.2	34.4	35.1	34.1	36.1	35.5	35.3	33.8	34.7	33.2	33.8
OCC	94		93.7	93.9	97.3	98.7	98.2	95.6	96.2	97.5	96.8	101.5	98.4	97.8
PAC	121	+	107.7	110.1	112.6	117.0	115.1	112.3	108.7	111.4	108.5	111.3	110.4	112.8
UFHT	63	-	70.8	73.4	66.7	73.0	72.1	71.5	67.6	73.7	65.8	71.2	71.5	67.6
WFB	97		93.0	97.1	93.2	96.0	92.5	92.9	92.2	94.0	90.0	94.3	94.7	93.4
XCB	135		137.0	143.0	132.7	135.4	139.2	136.4	135.4	138.2	136.3	141.3	140.5	135.3
ZYB	132		131.8	141.2	121.9	130.5	133.0	131.5	123.7	131.1	125.4	134.2	130.0	129.6

Natural Log of Determinant = 42.2726

P. 8 of 14

ML73-3413  
S. Demick

8402  
P. 5 of 14



FORDISC 3.1 Analysis of Current Case

4/26/2011 1:20:30 PM

DF results using 11 Forward % selected (min: 1 max: 20, out of 16) variables:

GOL ZYB BBH NLB BNL OCC BPL OBH WFB NLH

PAC

Variables removed: UFBR MDH MAL DKB EKB FOL FOB

From Group	Total Number	Into Group								Percent Correct
		AM	BM	CHM	GTM	HM	JM	VM	WM	
AM	51	34	2	4	5	0	3	2	1	66.7 %
BM	96	2	64	2	6	9	4	2	7	66.7 %
CHM	69	1	8	35	4	3	10	5	3	50.7 %
GTM	68	4	1	0	52	8	0	2	1	76.5 %
HM	172	5	20	21	40	30	22	15	19	17.4 %
JM	168	22	8	24	6	19	71	14	4	42.3 %
VM	48	0	0	4	3	2	5	33	1	68.8 %
WM	263	1	17	9	1	12	11	8	204	77.6 %

Total Correct: 523 out of 935 (55.9 %) \*\*\* CROSSVALIDATED \*\*\*

Multigroup Classification of Current Case

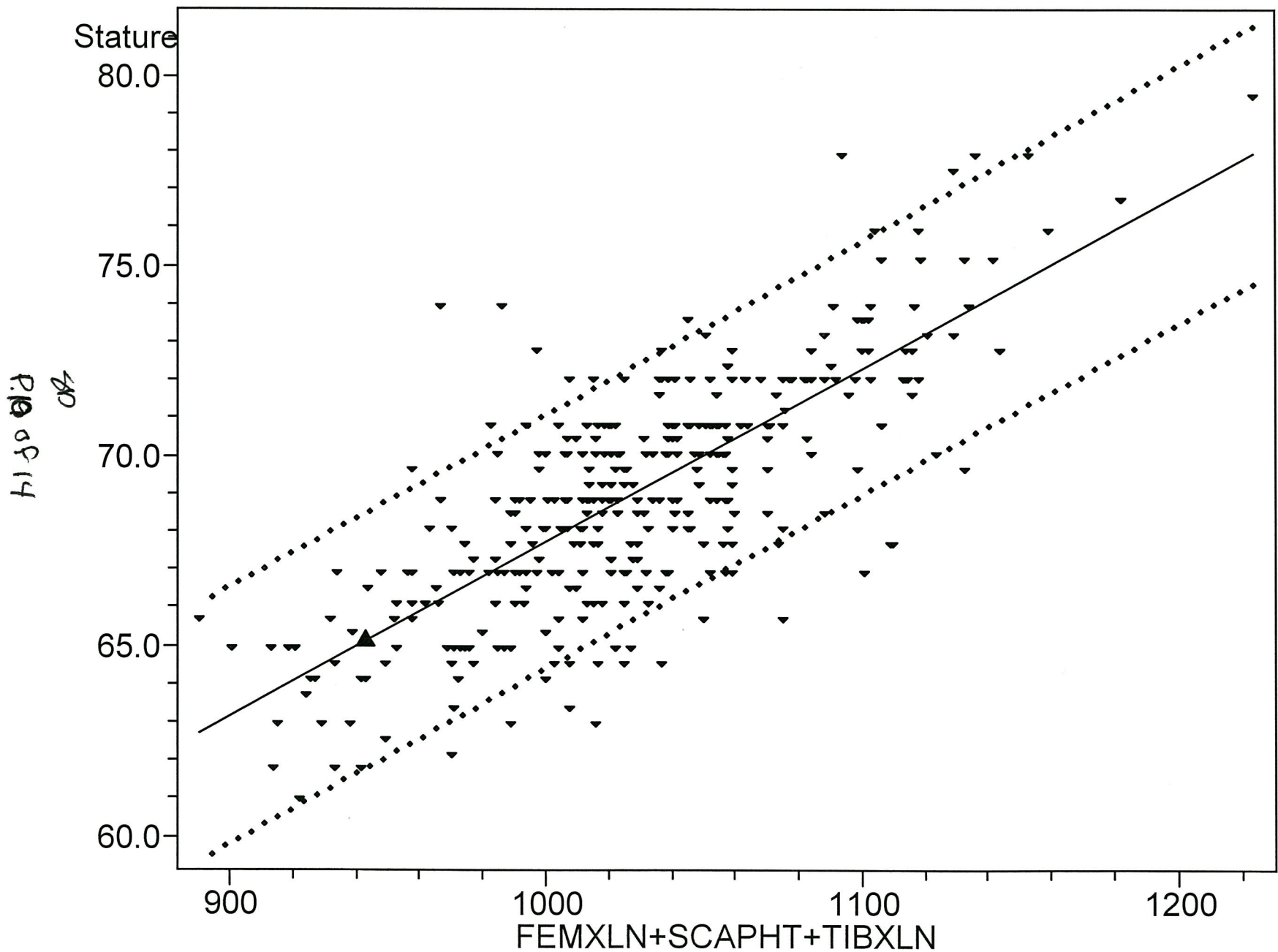
Group	Classified into	Distance from	Probabilities			
			Posterior	Typ F	Typ Chi	Typ R
WM	**WM**	8.8	0.645	0.677	0.645	0.635 (96/264)
CHM		12.6	0.096	0.492	0.323	0.130 (60/70)
JM		12.8	0.086	0.376	0.308	0.262 (124/169)
HM		13.2	0.070	0.346	0.280	0.326 (116/173)
BM		13.4	0.062	0.385	0.265	0.385 (59/97)
AM		14.7	0.033	0.425	0.197	0.255 (38/52)
GTM		18.4	0.005	0.196	0.072	<b>0.044 (65/69)</b>
VM		19.5	0.003	0.229	0.053	<b>0.042 (46/49)</b>

Current Case is closest to WMs

Group Means

Current Case	Chk	AM 51	BM 96	CHM 69	GTM 68	HM 172	JM 168	VM 48	WM 263
GOL	185	180.1	186.8	181.2	173.2	178.0	180.1	172.4	187.9
ZYB	132	141.2	130.5	133.0	131.5	131.2	134.2	130.0	129.6
BBH	137	133.4	137.3	139.7	133.2	136.5	138.8	137.8	141.9
NLB	23	26.1	26.3	25.9	25.5	24.9	25.1	26.2	23.7
BNL	103	103.0	104.4	100.3	98.5	100.7	101.5	97.6	106.3
OCC	94	93.9	98.6	98.2	95.6	97.7	101.5	98.4	100.8

h1 to b.p.d. p. 9 of 14



4/27/2011 FORDISC 3.1 : Estimated Stature = 62.0 to 68.6 inches (90% prediction interval)



Harris County Institute of Forensic Sciences  
 Forensic Anthropology Division  
 Estimation of Race  
 (Gill and Rhine 1990, Base 1987, Burns 1999)

ESTIMATION OF RACE White / Asian-Native American Admixture . += NOTICABLE, ++ = PROMINENT

CAUCASIAN	AFRICAN-AMERICAN	ASIAN/NATIVE AMERICAN
Skull Shape: ___ High, Narrow	___ Low w/Postbregmatic Depression	<u>+</u> Low, Sloping
Skull Height: ___ Rounded, Narrow	___ Low and Flat	<u>+</u> Rounded, High
Face Shape: ___ Narrow, Long	___ Prognathic	<u>+</u> Broad, Flat
Eye Orbits: ___ Slanting Square, Large	___ Laterally Low and Small	<u>+</u> Square
Zygomastics: <u>++</u> Small- Retreating Malars	___ Small, Retreating Malars	___ Robust and Flaring
Zygomaxillary Suture: ___ Jagged, S-Shaped	___ Curved or S-Shaped	<u>+</u> Angled
Nasal Sill: <u>+</u> Sharp, Protruding	___ Guttered	___ Sharp
Nasal Aperture: <u>+</u> Narrow	___ Wide	___ Medium
Nasal Spine: <u>Not present</u> ___ Large, Long	___ Little or None	___ Medium, Tilted
Nasal Bones: <u>+</u> High, Arched	___ Low, Flat Wide Arch	___ Low "Tented" Arched
Alveolar Prognathism: <u>+</u> Narrow, Little	___ Pronounced	___ Reduced
Palatal Shape: ___ Parabolic, Narrow	___ Hyperbolic	<u>++</u> Elliptic
Palatal Suture: ___ Z-Shaped	___ Arched	<u>+</u> Straight
Chin: <u>Not present</u> ___ Square, Projecting	___ Retreating	___ Blunt
Dentition: ___ Crowded, Impacted M3	___ Crenulated Molars	<u>+</u> Not Crowded
Bite: <u>mandible absent</u> ___ Overbite	___ Overbite, Prognathic	___ Edge-to-Edge
Femur Curvature: <u>+</u> Arched (L)	___ Flat	<u>+</u> Little (R)

Case Number ML73-3413  
 Analyst S. Derrick  
 Date 3/14/2011

Harris County Institute of Forensic Sciences  
 Forensic Anthropology Division  
 Estimation of Sex  
 (Buikstra and Ubelaker 1994, Ubelaker 1989, Bass 1987)

Young individual

**MALE**

	-2	FEMALE		0	MALE		+2
		-1			+1		
<b>CRANIAL</b>							
Supra-Orbital Margin							
Supra-Orbital Ridge							
Mastoid Process							
Zygomatic Arch Extension							
Nuchal Crest							
Mental Eminence	Not present						
Mandibular Ramus	Not present						
Temporalis Attachment							
<b>POSTCRANIAL</b>							
Sciatic Notch							
(Phenice 1969) Ventral Arc			<input type="checkbox"/> Presence			<input checked="" type="checkbox"/> Absence	
Subpubic Concavity			<input type="checkbox"/> Concave			<input checked="" type="checkbox"/> Convex	
Ischiopubic Concavity			<input type="checkbox"/> Presence			<input checked="" type="checkbox"/> Absence	
Pubic Length			<input type="checkbox"/> Long			<input checked="" type="checkbox"/> Short	
Sacral Attachment			<input type="checkbox"/> Elevated			<input checked="" type="checkbox"/> Flat	
Sacrum	Not present		<input type="checkbox"/> Straight			<input type="checkbox"/> Curved	
(Stewart 1979) Femoral Head Diameter	<42.5mm			43-46mm	<u>&gt;47.5mm</u>		
Humeral Head Diameter	<42.7			43-46mm	<u>&gt;47.2mm</u>		

Harris County Institute of Forensic Sciences  
Forensic Anthropology Division  
Age Estimation

ESTIMATION OF AGE: 16-19 years

POSTCRANIAL:

Pubic Symphysis:

FEMALE (Suchey-Brooks 1990, Suchey and Katz 1986)

MALE (Suchey-Brooks 1990, Suchey and Katz 1986)

Symphysal face I-1 is somewhat eroded

MALE (Todd 1920, 1921) clear absence of upper/lower delimitation

MALE (Suchey-Brooks 1990, Suchey and Katz 1986) marked ridges/furrows present

FEMALE (Suchey-Brooks 1990, Suchey and Katz 1986)

\* Using LEFT

I-1

I: \_\_\_ II: \_\_\_ III: \_\_\_

I: \_\_\_ II: \_\_\_ III: \_\_\_

I: \_\_\_ II: \_\_\_ III: \_\_\_

Right Probably Does not belong to

RIGHT ML73-3413 95% 15-23 yrs range

I-1 18.5 yrs  $\bar{x}$   $sd=2.1$

right innominate that does not belong to remains

I: \_\_\_ II: \_\_\_ III: \_\_\_

Sternal Rib End Changes

(Iscan et al 1984, 1985, 1986)

Rib#: 4 Phase: 0-1a Rib#: \_\_\_ Phase: \_\_\_

<17-19 yrs

(L) rib end smooth, minimally convex, no rim devel.

Epiphyseal Closure (1 = No Union, 2 = Partial Union, 3 = Complete Union)

(Moore-Jansen et al 1994 page 8-9, Webb and Suchey 1985)

metopic suture retained, ribs = heads not fused one in process

38) Basilar Suture 2

39) Medial Clavicle 0

40) Atlas - Anterior 3

41) Atlas - Posterior 2

42) Axis - Anterior 3

43) Axis - Posterior 2-3 SD

44) Cervical Vert Rim 3

45) Thoracic Vert Rim 2

46) L5 Body - Arch N/A

47) Lumbar Vert Rim 2

48) Sacrum (S1/2) 2

49) Sacrum (S2/3) N/A

50) Sacrum (S3/4) 1

(L) 51) Innom. Prim. Elem 3 still fusing in acetab

52) Ischial Tuberosity 2

53) Anterior Iliac Crest 0

54) Proximal Humerus 2

55) Medial Epic. Hum. 2

iliac Crest (2)

56) Proximal Radius 3 17-25 yrs

57) distal Radius 2

58) Distal Ulna 2

59) Distal Ulna 3 proximal

60) Femur Head 2

61) G. Trochanter 3

62) Distal Femur 2

63) Proximal Tibia 2

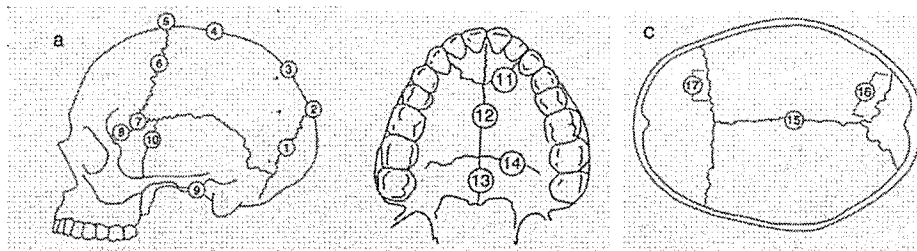
64) Distal Tibia 3

CRANIAL: The decedent is too young for accuracy w/ this method.

Cranial Suture Closure (Baker 1984, Mann et al 1987,  $\leq$ endi and Lovejoy 1985, Todd and Lyon 1924, 1925)

(0=open, 1=Minimal Closure, 2=Significant Closure, 3=Complete Obliteration/Buikstra and Ubelaker 1994 pages 32-34).

- 1) 0 10) 0
- 2) 1 11) 1
- 3) 1 12) 0
- 4) 0 13) 0
- 5) 0 14) 1
- 6) 0 15) 0
- 7) 1 16) 0
- 8) 1 17) 0
- 9) 1



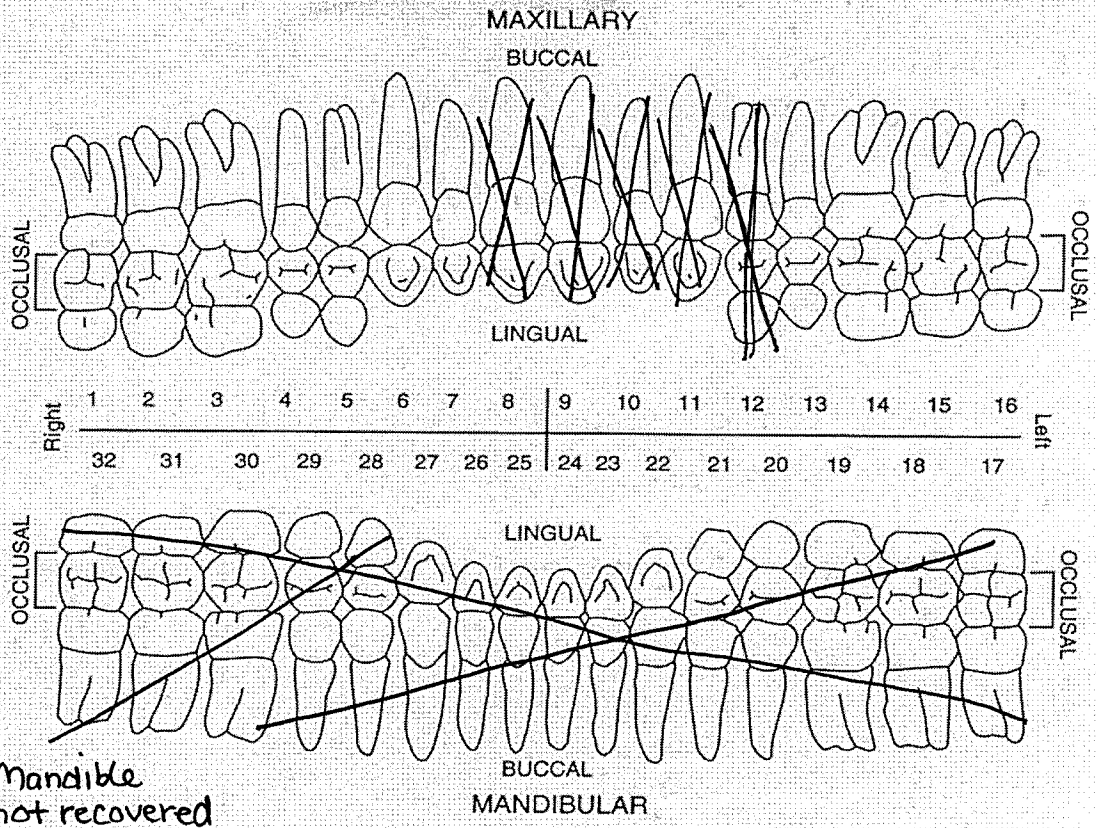
Vault Score (Sites 1-7) 3

Lateral Score (Sites 6-10) 3

Other Indicators of Age: Little to no wear on teeth. Third molar roots open, 3/4 developed.  
Rib heads fusing to neck (17-25 years), one only (16 yrs)

Case Number ML73-3413  
Analyst S. Derrick  
Date 3/14/2011

Harris County Institute of Forensic Sciences  
 Forensic Anthropology Division  
 Dentition Chart - Permanent



\* No caries noted, no reconstructions, cusp wear on 3, 14

- |                   |     |  |     |       |
|-------------------|-----|--|-----|-------|
|                   | 1.  | erupting, <sup>3/4</sup> , open roots 16.4 yrs | 17. | _____ |
|                   | 2.  | pit in occlusal buccal groove                  | 18. | _____ |
| Carabelli's cusp  | 3.  | pit in occlusal buccal groove                  | 19. | _____ |
|                   | 4.  |  | 20. | _____ |
|                   | 5.  | pits in occlusal mesial & distal grooves       | 21. | _____ |
| Smith 1991        | 6.  | root complete, 11+ yrs                         | 22. | _____ |
| 80                | 7.  | shovel, root complete, 8.3+ yrs                | 23. | _____ |
|                   | 8.  |  | 24. | _____ |
|                   | 9.  |  | 25. | _____ |
|                   | 10. |  | 26. | _____ |
|                   | 11. |  | 27. | _____ |
|                   | 12. |  | 28. | _____ |
|                   | 13. |  | 29. | _____ |
|                   | 14. | Carabelli's cusp, pitting in occ. grooves      | 30. | _____ |
| pitting in groove | 15. | apex 1/2 closed 13.9+ yrs Smith 1991           | 31. | _____ |
|                   | 16. | erupting, <sup>3/4</sup> , open roots 16.4 yrs | 32. | _____ |

\* Dr. Stinson notes occlusal caries on 2, 3, 14, 15 must be very subtle, in grooves? - Observed as pits

Case Number ML73-3413  
 Analyst J. Dunick  
 Date 3/14/2011

STATE OF TEXAS

## CERTIFICATE OF DEATH

STATE FILE NO.

1. PLACE OF DEATH a. COUNTY <b>Chambers</b>		2. USUAL RESIDENCE (Where deceased lived. If institution: residence before admission) a. STATE <b>TEXAS</b> b. COUNTY <b>HARRIS</b>	
b. CITY OR TOWN (If outside city limits, give precinct no.) <b>(found) Approx. 1917 ft. E. of the W. 1/2 Sec. 8, of Hwy. 87</b>		c. LENGTH OF STAY in 1 b. <b>Houston</b>	
d. NAME (If in hospital, give name of HOSPITAL OR INSTITUTION) <b>County line of Chambers Co./ approx./</b>		d. STREET ADDRESS (If rural, give location) <b>439 West 16th</b>	
e. IS PLACE OF DEATH INSIDE CITY LIMITS? YES <input type="checkbox"/> NO <input type="checkbox"/>		e. IS RESIDENCE INSIDE CITY LIMITS? YES <input checked="" type="checkbox"/> NO <input type="checkbox"/>	
f. IS RESIDENCE ON A FARM? YES <input type="checkbox"/> NO <input checked="" type="checkbox"/>			
3. NAME OF DECEASED (Type or print) (a) First <b>BILLY</b> (b) Middle <b>GENE</b> (c) Last <b>BAULCH, Jr.</b>			4. DATE OF DEATH <b>Found 8-13-73</b>
5. SEX <b>Male</b>	6. COLOR OR RACE <b>White</b>	7. Married <input type="checkbox"/> Never Married <input checked="" type="checkbox"/> Widowed <input type="checkbox"/> Divorced <input type="checkbox"/>	8. DATE OF BIRTH <b>April 21, 1955</b>
9. AGE (In years last birthday) <b>18</b>		IF UNDER 1 YEAR Months Days Hours Minutes	IF UNDER 24 HRS. Hours Minutes
10a. USUAL OCCUPATION (Give kind of work done during most of working life, even if retired) <b>Student</b>		10b. KIND OF BUSINESS OR INDUSTRY <b>School</b>	11. BIRTHPLACE (State or foreign country) <b>Houston, Texas</b>
12. CITIZEN OF WHAT COUNTRY? <b>USA</b>		13. FATHER'S NAME <b>Billy Baulch, Sr.</b>	
14. MOTHER'S MAIDEN NAME <b>Maggie Jane Cox</b>		15. WAS DECEASED EVER IN U.S. ARMED FORCES? (Yes, no, or unknown) (If yes, give war or dates of service) <b>No</b>	
16. SOCIAL SECURITY NO.		17. INFORMANT	
18. CAUSE OF DEATH [Enter only one cause per line for (a), (b), and (c).] PART I. DEATH WAS CAUSED BY: IMMEDIATE CAUSE (a) <b>Asphyxia due to strangulation.</b> Conditions, if any, which gave rise to above cause (a), stating the underlying cause last. DUE TO (b) _____ DUE TO (c) _____			INTERVAL BETWEEN ONSET AND DEATH
PART II. OTHER SIGNIFICANT CONDITIONS CONTRIBUTING TO DEATH BUT NOT RELATED TO THE TERMINAL DISEASE CONDITION GIVEN IN PART I (a)			19. WAS AUTOPSY PERFORMED? YES <input checked="" type="checkbox"/> NO <input type="checkbox"/>
20a. ACCIDENT <input type="checkbox"/> SUICIDE <input type="checkbox"/> HOMICIDE <input checked="" type="checkbox"/>	20b. DESCRIBE HOW INJURY OCCURRED. (Enter nature of injury in Part I or Part II of Item 18.) <b>Strangled.</b>		
20c. TIME OF INJURY Hour <b>found</b> Day <b>8</b> Year <b>13 73</b> a.m. p.m.	20d. INJURY OCCURRED WHILE AT WORK <input type="checkbox"/> NOT WHILE AT WORK <input checked="" type="checkbox"/> <b>(found) Chambers County</b>		
20e. PLACE OF INJURY (e.g., in or about home, farm, factory, street, office building, etc.) <b>Chambers</b>	20f. CITY, TOWN, OR LOCATION <b>Chambers</b>	STATE <b>Texas</b>	
21. I hereby certify that I attended the deceased from <b>found</b> to _____, 19____ and last saw the deceased alive <b>from autopsy findings</b> on <b>8-13-73</b> m. on the date stated above, and to the best of my knowledge, from the causes stated.			
22a. SIGNATURE <b>Joseph A. Jachinczyk, M.D.</b>		22b. ADDRESS <b>209 Courthouse Houston, Texas</b>	22c. DATE SIGNED <b>10-17-73</b>
23a. BURIAL, CREMATION, REMOVAL (Specify) <b>Burial</b>		23b. DATE <b>October 12, 1973</b>	23c. NAME OF CEMETERY OR CREMATORY <b>Woodlawn Garden of Memories</b>
23d. LOCATION (City, town, or county) <b>Houston</b>		(State) <b>Texas</b>	24. FUNERAL DIRECTOR'S SIGNATURE <b>HEIGHTS FUNERAL HOME</b>
25a. REGISTRAR'S FILE NO.	25b. DATE REC'D BY LOCAL REGISTRAR	25c. REGISTRAR'S SIGNATURE	

MEDICAL CERTIFICATION

INVESTIGATOR'S REPORT

Autopsy

Investigator: H. C. Gregory

Case No. 73 - 3413

~~View~~

Decedent: Billy Gene Baulch, Jr. Race W Sex M Age 17

Address: 439 West 16th Street, Houston, Texas

Death: FOUND August 13, 1973 Approx. Time 4:00 ~~XXXX~~  
P.M.

Place of Death: Chambers County, approximately 1917 feet east of the West County  
line of Chambers County, approximately 123 feet south of Hwy. 87

Place of Inquest: \_\_\_\_\_

Date and Time of Inquest: August 14, 1973 4:50 ~~XXXX~~  
P.M.

Location, Position, and Surroundings of Body:

This common grave was known as Chambers County Grave Site #4.  
This body was known as Chambers County Body #5.

Clothing: There was no clothing.

Information:

The decedent, according to Chambers County Sheriff Louis Otter, was disinterred from a grave site at the above location at the above time. The grave appeared to be about 36 inches deep, 24 inches wide and 42 inches in length. There was no lime-like substance or noticeable foreign matter in the grave, other than the remains of Medicolegal Case 73-3412 and Medicolegal Case 73-3413, a cord similar to a venetian blind cord and plastic covering. The decedent, according to Sheriff Otter, had a smaller bone structure than that of Unknown #25 (Case 73 - 3412). The decedent and Case 73-3412 (Unknown #25) were atop one another in a common grave with their respective heads at opposite ends of the grave.

H. C. Gregory  
H. C. Gregory *NN*

(See Companion Cases 73-3365, 73-3366, 73-3408, 73-3409 and 73-3412)

Property: No jewelry, buttons, buckles or personal effects were located in the grave.

Transferred to Morgue by: Sterling Funeral Home, Dayton, Texas

Funeral Home Conducting Service: Heights Funeral Home, Houston, Texas

SUPPLEMENTAL  
INVESTIGATOR'S REPORT

Autopsy

Investigator: H. C. Gregory

View

Case No. 73 - 3413

Decedent: \_\_\_\_\_ Race \_\_\_\_\_ Sex \_\_\_\_\_ Age \_\_\_\_\_

Address: \_\_\_\_\_

Death: \_\_\_\_\_ Approx. Time \_\_\_\_\_ A.M.  
P.M.

Place of Death: \_\_\_\_\_

Place of Inquest: \_\_\_\_\_

Date and Time of Inquest: \_\_\_\_\_ A.M.  
P.M.

Location, Position, and Surroundings of Body:

Clothing:

Information:

The following information was furnished on August 13, 1973, by Houston Police Department Homicide Detective Donovan regarding Billy Baulch, 17 year old white male, 5 feet 9 inches, 145 pounds, 439 West 16th Street, Houston, Texas. Billy Baulch had been missing since May 21, 1972. The suspect Brooks said that Billy Baulch was one of the decedents. Billy Baulch had a chip in his upper left lateral incisor. An X-ray of Billy Baulch's left elbow will be furnished to this department, revealing a fracture which occurred in 1966.

X-ray labeled "Billy Baulch" and a black and white photograph of Billy and Mike Baulch were turned over to H. C. Gregory at the Harris County Morgue on August 13, 1973, by Houston Police Department Officers A. J. Toepoel and E. E. Benningfield.

H. C. Gregory  
H. C. Gregory NN

Property:

Transferred to Morgue by:

Funeral Home Conducting Service:

STATE OF TEXAS

## CERTIFICATE OF DEATH

STATE FILE NO.

1. PLACE OF DEATH a. COUNTY <b>Chambers</b>		2. USUAL RESIDENCE (Where deceased lived. If institution: residence before admission) a. STATE <b>TEXAS</b> b. COUNTY <b>HARRIS</b>	
b. CITY OR TOWN (If outside city limits, give precinct no.) <b>(found) Approx. 1917 ft. E. of the W. 1/2 Sec. 8, of Hwy. 87</b>		c. CITY OR TOWN (If outside city limits, give precinct no.) <b>Houston</b>	
d. NAME OF HOSPITAL OR INSTITUTION <b>County line of Chambers Co./ approx./</b>		d. STREET ADDRESS (If rural, give location) <b>439 West 16th</b>	
e. IS PLACE OF DEATH INSIDE CITY LIMITS? YES <input type="checkbox"/> NO <input type="checkbox"/>		e. IS RESIDENCE INSIDE CITY LIMITS? YES <input checked="" type="checkbox"/> NO <input type="checkbox"/>	
f. IS RESIDENCE ON A FARM? YES <input type="checkbox"/> NO <input checked="" type="checkbox"/>			
3. NAME OF DECEASED (Type or print) (a) First <b>BILLY</b> (b) Middle <b>GENE</b> (c) Last <b>BAULCH, Jr.</b>			4. DATE OF DEATH <b>Found 8-13-73</b>
5. SEX <b>Male</b>	6. COLOR OR RACE <b>White</b>	7. Married <input type="checkbox"/> Never Married <input checked="" type="checkbox"/> Widowed <input type="checkbox"/> Divorced <input type="checkbox"/>	8. DATE OF BIRTH <b>April 21, 1955</b>
9. AGE (In years last birthday) <b>18</b>		IF UNDER 1 YEAR Months Days Hours Minutes	IF UNDER 24 HRS. Hours Minutes
10a. USUAL OCCUPATION (Give kind of work done during most of working life, even if retired) <b>Student</b>		10b. KIND OF BUSINESS OR INDUSTRY <b>School</b>	11. BIRTHPLACE (State or foreign country) <b>Houston, Texas</b>
12. CITIZEN OF WHAT COUNTRY? <b>USA</b>		13. FATHER'S NAME <b>Billy Baulch, Sr.</b>	
14. MOTHER'S MAIDEN NAME <b>Maggie Jane Cox</b>		15. WAS DECEASED EVER IN U.S. ARMED FORCES? (Yes, no, or unknown) (If yes, give war or dates of service) <b>No</b>	
16. SOCIAL SECURITY NO.		17. INFORMANT	
18. CAUSE OF DEATH [Enter only one cause per line for (a), (b), and (c).] PART I. DEATH WAS CAUSED BY: IMMEDIATE CAUSE (a) <b>Asphyxia due to strangulation.</b> Conditions, if any, which gave rise to above cause (a), stating the underlying cause last. } DUE TO (b) _____ DUE TO (c) _____			INTERVAL BETWEEN ONSET AND DEATH
PART II. OTHER SIGNIFICANT CONDITIONS CONTRIBUTING TO DEATH BUT NOT RELATED TO THE TERMINAL DISEASE CONDITION GIVEN IN PART I(a)			19. WAS AUTOPSY PERFORMED? YES <input checked="" type="checkbox"/> NO <input type="checkbox"/>
20a. ACCIDENT <input type="checkbox"/> SUICIDE <input type="checkbox"/> HOMICIDE <input checked="" type="checkbox"/>	20b. DESCRIBE HOW INJURY OCCURRED. (Enter nature of injury in Part I or Part II of Item 18.) <b>Strangled.</b>		
20c. TIME OF INJURY Hour <b>found</b> Day Year a.m. <b>8</b> <b>13</b> <b>73</b> p.m. <b>UNK</b>			
20d. INJURY OCCURRED WHILE AT WORK <input type="checkbox"/> NOT WHILE AT WORK <input checked="" type="checkbox"/>	20e. PLACE OF INJURY (e.g., in or about home, farm, factory, street, office building, etc.) <b>(found) Chambers County</b>	20f. CITY, TOWN, OR LOCATION <b>Chambers</b>	STATE <b>Texas</b>
21. I hereby certify that I attended the deceased from <b>found</b> to <b>found</b> and last saw the deceased alive from autopsy findings. Death occurred at <b>8-13-73</b> on the date stated above, and to the best of my knowledge, from the causes stated.			
22a. SIGNATURE <b>Joseph A. Jachimczyk, M.D.</b>		22b. ADDRESS <b>209 Courthouse Houston, Texas</b>	22c. DATE SIGNED <b>10-17-73</b>
23a. BURIAL, CREMATION, REMOVAL (Specify) <b>Burial</b>		23b. DATE <b>October 12, 1973</b>	23c. NAME OF CEMETERY OR CREMATORY <b>Woodlawn Garden of Memories</b>
23d. LOCATION (City, town, or county) <b>Houston</b>		24. FUNERAL DIRECTOR'S SIGNATURE <b>HEIGHTS FUNERAL HOME</b>	
25a. REGISTRAR'S FILE NO.		25b. DATE REC'D BY LOCAL REGISTRAR	
25c. REGISTRAR'S SIGNATURE			

TEXAS DEPARTMENT OF HEALTH — BUREAU OF VITAL STATISTICS

MEDICAL CERTIFICATION

VS-12, REV. 1/58

3413

994.7  
E963





STATE HIGHWAY PATROL

DENTAL CHART

Fill out all information in PENCIL

# 26

Assigned identification number 73-3413 Division Case Number \_\_\_\_\_

Autopsy number \_\_\_\_\_ Picture Pouch Number \_\_\_\_\_

Armed Forces Serial Number \_\_\_\_\_ Date of Exam. \_\_\_\_\_

Social Security Number \_\_\_\_\_ Place of Exam. \_\_\_\_\_

(Circle One) UNKNOWN

PRESUMPTIVE BY EXCLUSION

**CONFIRMED**

Name of the Deceased	Estimated Age	Race	Sex
<i>Billy Banlek</i>			

CONFIRMED IDENTIFICATION OF BODY BY \_\_\_\_\_  
Name of Examiner

Confirmed identification by means of (circle) X-ray comparison, Clinical conformation by previous dental records, Other \_\_\_\_\_

X-rays taken (circle one) None, Complete Mouth, Bite Wings, Other \_\_\_\_\_

Photographs taken (circle one) None, Color, Black & White, Other \_\_\_\_\_

Name, Address, and Telephone Number of Photographer \_\_\_\_\_

Location of the Body \_\_\_\_\_

Position of the Body \_\_\_\_\_

BEFORE PROCEEDING—READ PAGE 2 CAREFULLY AND FOLLOW ALL INSTRUCTIONS—HAVE A QUALIFIED ASSISTANT TO DO ALL RECORDING RECORD ALL INFORMATION IN PENCIL

Name, Address, and Telephone Number of the Examiner \_\_\_\_\_

Name, Address, and Telephone Number of the Assistant \_\_\_\_\_

Signature of the examiner \_\_\_\_\_

Signature of the Assistant \_\_\_\_\_

## DENTAL CHARTING PROCEDURES

Tooth surfaces are recorded as follows—Mesial—M, Distal—D, Buccal—B, Occlusal—O, and Lingual—L.

Indicate if crowned tooth are Porcelain, Plastic, Gold, Gold Veneer, or non-precious metal. Write in above appropriate tooth on restoration chart—Page 3. For Gold work or veneer crowns outline restoration and indicate gold with parallel vertical lines. For porcelain crowns or plastic fillings outline restorations only—write in the type of material. For all amalgam and non-precious metals black in. (SEE EXAMPLE BELOW)

This charting procedure starts with the upper right third molar which is tooth #1 and proceeds around the arch. The upper right central incisor is #8, the upper left third molar is #16. The lower left third molar is #17. The lower right central incisor is #25 and the lower right third molar is #32.

Mark all deciduous teeth with a D around the number of its permanent successor. The deciduous upper right central would be marked **8** and the lower right second deciduous molar would be marked **29**.

EXAMPLE OF HOW TO PROCEED WITH DENTAL CHARTING																	
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	
UPPER RIGHT																	UPPER LEFT
	1. O-AM	2. DOL-AM; F-AM	3. MOD GOLD FILL	4. F-GOLD FILL; ML-AM	5. MO-AM	6. ML-GOLD FILL	7. 3/4 GOLD CR	8. D-PORC FILL	9. PORC-CR	10. F-PORC FILL; L-AM	11. MF-PORC FILL	12. PX-POSTHUMOUSLY MISSING	13. GOLD-CR	14. MISSING	15. MO-AM; L-AM	16. MODL-AM	

After you have finished your examination have your assistant read the charting back to you as you recheck each tooth; then proceed to note any of the following conditions. Indicate answers with tooth number.

Notched Enamel \_\_\_\_\_

Rotation \_\_\_\_\_

Fractured Enamel \_\_\_\_\_

Irregularity of Alignment \_\_\_\_\_

Enamel Hypoplasia \_\_\_\_\_

Unerupted Tooth \_\_\_\_\_

Fractures of Tooth \_\_\_\_\_

Unusual Restorations \_\_\_\_\_

Erosion \_\_\_\_\_

Malocclusion \_\_\_\_\_

Retained Dec. Teeth \_\_\_\_\_

Unusual Appliances \_\_\_\_\_

Abrasion \_\_\_\_\_

Supernumerary Tooth \_\_\_\_\_

Abnormal Interdental Spaces \_\_\_\_\_

Malposed Tooth \_\_\_\_\_

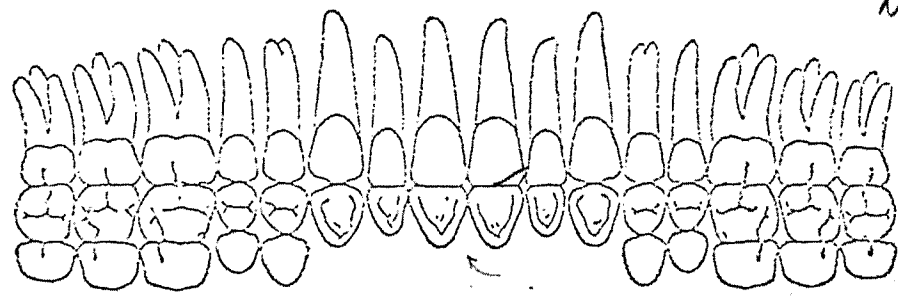
REMARKS \_\_\_\_\_

\_\_\_\_\_

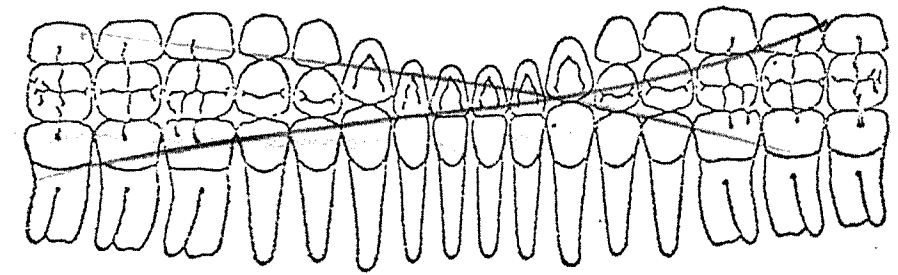
\_\_\_\_\_

MARK ALL RESTORATIONS ON THIS CHART

NO FILLINGS



RIGHT 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 LEFT



RIGHT 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 LEFT

Circle descriptive term

Prosthetic Appliances Present — Maxilla

Full Denture

Partial Denture

Fixed Bridge

Prosthetic Appliances Present — Mandible

Full Denture

Partial Denture

Fixed Bridge

Describe completely all Prosthetic Appliances or

Fixed Bridges NO MANDIBLE #9 CHIPPED ON DISTAL INCISAL

#9 MESIAL ROTATION - LAPS OVER MESIAL INCISAL OF #8

Stains on teeth

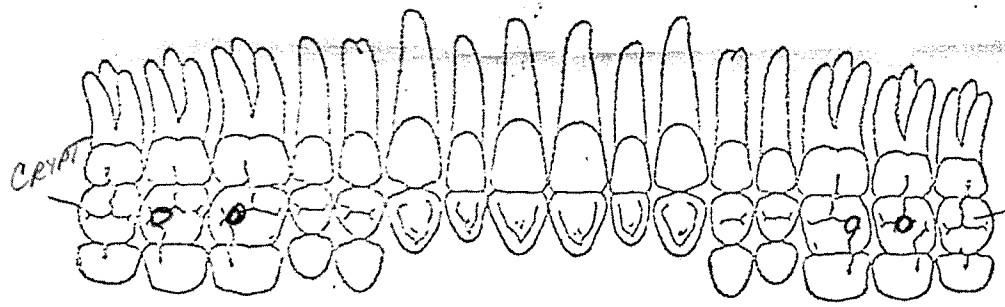
Slight

Moderate

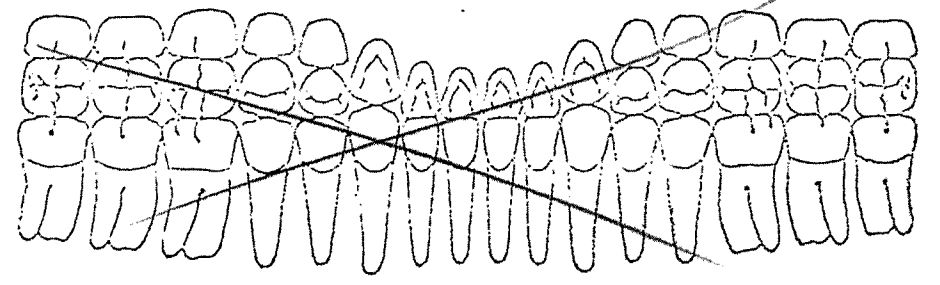
Severe

MARK ALL CARRIES AND MISSING TEETH ON THIS CHART

Outline all carries and 'X' out all missing teeth



RIGHT 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 LEFT



RIGHT 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 LEFT

Circle descriptive term

Jaw Relationship

Normal

Undershot

Ovorbite

Periodontal condition

Excellent

Average

Poor

Gross Neglect

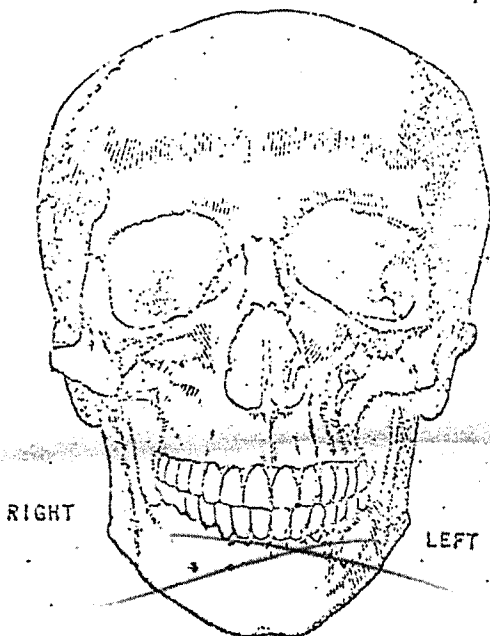
Calculus

Slight

Moderate

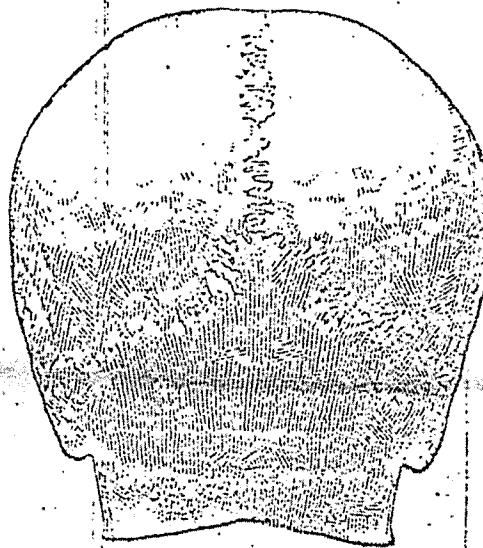
Severe

ANATOMICAL OUTLINES

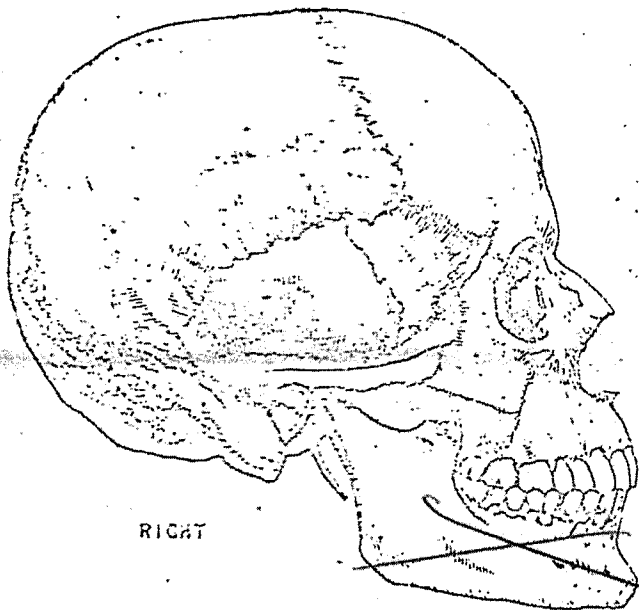


LEFT

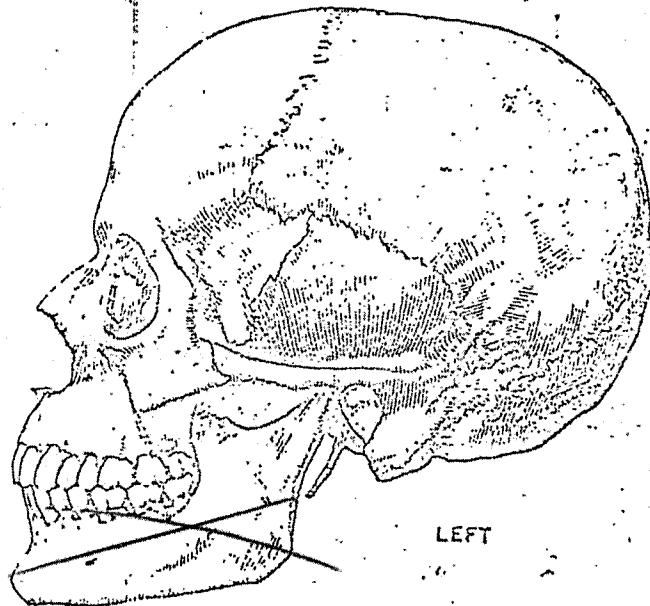
RIGHT



ENTIRE SKULL AVAILABLE FOR EXAMINATION \_\_\_\_\_ YES, \_\_\_\_\_ NO.  
IF ONLY PARTS OF THE SKULL ARE AVAILABLE BLACK OUT THE PARTS OF THE SKULL THAT YOU HAVE USED FOR THE IDENTIFICATION PROCEDURE. MARK IN ALL LINES OF FRACTURE.



RIGHT



LEFT

MAKE SURE THAT ANY PARTS OF THE SKULL THAT YOU REMOVE HAVE ATTACHED TO THEM A TAG WITH THE ASSIGNED IDENTIFICATION NUMBER.

AFIP NUMBER 66-5246-1

Division Consultant: Dr. Curtis A. Hertz  
P. O. Box 370  
Ashtabula, Ohio 44004

DATE: \_\_\_\_\_

# 26

ML 73-3413

SEX: \_\_\_\_\_

SCARS: Skeleton

RACE: \_\_\_\_\_

TATTOOS: \_\_\_\_\_

EST. AGE: 21-23

OTHER: poss. spina bifida of one lumbar vertebra

HEIGHT: 5-3 1/2 to 5-6

X-RAY: \_\_\_\_\_

WEIGHT: \_\_\_\_\_

CLOTHING: None

EYES: \_\_\_\_\_

PERSONAL EFFECTS: \_\_\_\_\_

HAIR: brown 6-7 inches

BODY CAN BE VIEWED: YES \_\_\_\_\_ NO \_\_\_\_\_

DECEDENT'S NAME: \_\_\_\_\_

DECEDENT'S ADDRESS: \_\_\_\_\_

NEXT OF KIN: \_\_\_\_\_

ADDRESS: \_\_\_\_\_

IDENTIFIED BY: \_\_\_\_\_ DATE: \_\_\_\_\_

ADDRESS: \_\_\_\_\_

HCME OFFICER PRESENT: \_\_\_\_\_

HARRIS COUNTY INSTITUTE OF FORENSIC SCIENCES  
1885 OLD SPANISH TRAIL  
HOUSTON, TEXAS 77054-2098

Sharon M. Derrick, Ph.D.  
Forensic Anthropologist

ML73-3413

**REPORT OF ANTHROPOLOGY CONSULTATION**

**DRAFT**

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**CASE NUMBER:** ML73-3413 (formerly IO11-00556)  
**NAME:** Billy Gene Baulch, Jr.  
**PATHOLOGIST:** Joseph A. Jachimczyk, MD, G. Sheldon Green, MD and  
Dwayne A. Wolf, MD, PhD  
**DATE (analyzed):** March 11-14, 2011

---

On February 10, 2011, Dr. Wolf, Deputy Chief Medical Examiner, requested a skeletal profile and trauma analysis review of the skeletal remains of ML73-3413 (IO11-00556). The remains were exhumed from Woodlawn Cemetery, 1101 Antoine Drive, Houston, Texas under Order Number 2010-83010 from Harris County District Court 151. The exhumation was performed on February 8, 2011 to examine ML73-3333 and ML73-3413 for collection of anthropological and DNA data. See the original autopsy reports for ML73-3333 and ML73-3413 included in the current case files and the Case Background section below for detailed information on these cases. Two discrete body bags containing skeletal remains were recovered from within a single casket. The remains were immediately transferred to the HCIFS Morgue, received through the check-in process, and placed in the Anthropology Laboratory. Although the remains were believed to be those of ML73-3333 and ML73-3413, the cases were assigned inquest numbers (IO11-00555 and IO11-00556, respectively) at check-in.

As a result of the shallow water table geology of the Houston area, the two body bags were submerged in muddy water within the casket. The water had leaked through the zippers, resulting in waterlogged and softened skeletal elements. Further, mineral deposits had precipitated from the water to coat the majority of the bone surfaces. The elements of each set of remains were washed individually in cool water, reconstructed, ordered, and placed in anatomical position on an examination table to dry.



IO11-00555 and IO11-00556 were assessed for the minimum number of individuals present and for evidence of possible commingling of the decedents placed in the casket in 1973. The remains were also compared with photographs and inventory documentation from the ML73-3333 and ML73-3413 case files. IO11-00555 represents the nearly complete skeletal remains of one individual and is consistent with the archived photo and record documentation of ML73-3333. IO11-00556 is comprised of a minimum of two commingled individuals (see Inventory below), but is consistent with the archived photo and record documentation of ML73-3413. Therefore, IO11-00555 is reassigned case number ML73-3333 and IO11-00556 is reassigned case number ML73-3413.

ML73-3413 was examined grossly and with a stereomicroscope when appropriate, measured and photographed. Elements representing a second individual were removed and submitted to the University of North Texas Center for Human Identification (UNT) for DNA analysis (see Inventory below). Following the examination, ML73-3413 was placed in a box labeled with the case number and returned to the HCIFS Morgue refrigeration unit.

DRAFT

#### Case Background

ML73-3333 and ML73-3413 are two of 27 companion cases recovered from three locations during a serial murder investigation in August 1973. The partially fleshed, articulated remains of ML73-3333 were recovered on August 8, 1973 from the dirt floor of a storage facility in southwest Houston. The disarticulated skeletal remains of ML73-3413 were recovered from a burial site on a beach in Chambers County on August 13, 1973.

ML73-3333 and ML73-3413 were identified through circumstantial evidence on October 9, 1973 as brothers Michael Anthony Baulch and Billy Gene Baulch, Jr. (see Identification section below). The remains were released to the funeral home on October 10. The family chose to place the decedents within the same casket for burial in the Woodlawn Cemetery.

ML73-3333 was misidentified as Michael Baulch in 1973. The misidentification was discovered in 2010 during the ongoing Forensic Anthropology Division review of unidentified decedent cases. ML73-3378, a companion case recovered from a Lake Sam Rayburn beach on August 9, 1973 was subsequently identified as Michael Baulch



by DNA comparison. See Identification below. The identity of ML73-3333 is unknown at this time (see Anthropology Report ML73-3333).

### Inventory

The remains of ML73-3413 represent a minimum of two individuals. The first individual, identified as Billy Baulch, is represented by approximately 60% of the skeleton. The following elements are absent.

Mandible

Right ribs 1-2 and 11-12

Left ribs 8 and 10-12

Manubrium, corpus sterni, and xiphoid process

Cervical vertebra 3

Three mid-range cervical vertebrae

Nine mid-range through lower range thoracic vertebrae

Lumbar vertebrae 2-5

Sacrum

Right innominate

Right patella

Left patella

Right carpals (7), right hamate is present

Right metacarpals 1-5

All phalanges of the right hand

Left ulnar epiphysis

Left carpals (8)

Left metacarpals 1-5

All phalanges of the left hand

Right tarsals (7)

Right metatarsals 1-5

All phalanges of the right foot

Left tarsals (7)

Left metatarsals 1-4

Left metatarsal 5, retained in 1973 and submitted for DNA analysis in 2006)

All phalanges of the left foot

DRAFT

The following elements are inconsistent in size, general morphology, and/or age with the majority of the remains. These elements, representing a minimum of one

individual, were examined and photographed prior to removal for DNA analysis. A case number(s) will be assigned to the remains after receipt of DNA results.

- Right innominate: the right innominate is more robust than the left, and the size of the acetabulum is not a good fit for the right femoral head. The left innominate and left femur articulate well. DNA analysis of the left innominate indicates that the left innominate likely belongs to Billy Baulch (see Identification section below).
- One mid-range thoracic vertebra, one upper range lumbar vertebra, and one mid-range lumbar vertebra. The rims of the centra are more developed than those of the other vertebrae, and may represent an older individual. The lumbar vertebrae centra also contain Schmorl's nodes, inconsistent with the healthy centrum faces of the other vertebrae. DNA analysis indicates the more youthful vertebrae belong to Billy Baulch (see Identification section below).
- One right second or third rib. The rib is noticeably more robust than the upper range ribs of the left side.

DRAFT

#### Skeletal Profile

The following profile was obtained from the remains determined by comparison of morphology, growth, and development to belong to the same individual and to represent the majority of ML73-3413. The results are consistent with the missing person description of Billy Gene Baulch, Jr. (17 years old at disappearance on 5/21/1972, DOB: 04/21/1955, White male, estimated 5'9" tall) obtained from the original autopsy report supplement, dated October 8-9, 1973, in which ML73-3413 was identified as Billy Gene Baulch, Jr.

- Age: 16-19 years
- Ancestry: White, with possible Native American admixture
- Sex: Male
- Stature: 62.0"-68.6" (5'3" - 5'9")

#### Age

The decedent is an adolescent of an estimated 16-19 years based on epiphyseal fusion, age-related morphology of the sternal end of the fourth rib and the pubic symphysis, dental development, and general skeletal size.

The remains are large enough in general size to represent an adult individual. However, the pattern of epiphyseal fusion is consistent with an adolescent that has not



yet attained full adult skeletal growth and development. The following epiphyses are in a stage of partial union. The age range estimates for fusion follow Scheuer and Black.

- Basilar suture (range 13–18 years)
- Posterior atlas, likely an anomaly, fuses at approximately 4–5 years
- Rib heads (range 17–25 years)
- Thoracic vertebral rims (range puberty to early 20s)
- Lumbar vertebral rim (range puberty to early 20s)
- Ischial tuberosity (<20 years)
- Iliac crest (17–20 years)
- Head of humerus (16–20 years)
- Medial epicondyle of humerus (14–16 years)
- Distal radius (16–20 years)
- Distal ulna (17–20 years)
- Head of femur (15–19 years)
- Distal femur (16–20 years)
- Proximal tibia (15–19 years)

DRAFT

The age-related morphology of the left fourth rib is consistent with Phases 0–1a (male) of the Iscan model, corresponding to an age range of <17–19 years. In cross-section the rib end is smooth and minimally convex, with no development of the rim observed. Age-related morphology of the left pubic symphysis face corresponds to male Phase I–1 of the Suchey–Brooks method, with a range of 15–23 and a mean of 18.5 years of age. The symphyseal face is somewhat eroded as a result of taphonomic processes but there is clear absence of upper and lower delimitation accompanied by the presence of marked ridges and furrows.

The dentition is consistent with that of an adolescent. The maxillary third molars, teeth 1 and 16, are in an early stage of eruption. The roots have developed to approximately  $\frac{3}{4}$  of the full length and are open at the apices. Although development and eruption of the third molars is variable, this stage has been described by Smith as consistent with a mean age of 16.4 years. The dentition is described more fully under the Dentition section below.

### Ancestry

ML73–3413 is estimated as White with possible Native American admixture based on metric and morphological analyses. Cranial and postcranial measurements for ML73–3413 were entered into FORDISC 3.1, a multidiscriminant function software program.

FORDISC 3.1 compared the measurements with those compiled in the Forensic Database and provided the following classification results:

- White male, based on 39 postcranial measurements compared with males and females in the Forensic Database (posterior probability=0.998, typicality probability=0.657, and a low typicality Chi=0.040).
- White male, based on stepwise comparison of 5 postcranial measurements also compared with both males and females (posterior probability=0.478, typicality probability=0.450, typicality Chi=0.414). The decedent is an adolescent. Comparison with only male measurements results in an inconclusive classification.
- White male, based on 17 cranial measurements compared with all individuals in the Forensic Database (posterior probability = 0.774, typicality probability = 0.345, typicality Chi=0.265).
- White male, based on stepwise comparison of 11 cranial measurements with males only (posterior probability=0.645, typicality probability=0.677, typicality Chi=0.645).

DRAFT

The morphological method of ancestry estimation for ML73-3413 follows the Gill and Rhine model. Characteristics of the cranium associated with White populations observed in the decedent include: small retreating zygomatics, a sharp protruding nasal sill, a narrow nasal aperture, high arched nasal bones, and little alveolar prognathism. Characteristics of the cranium associated with Native American populations observed include: a low sloping skull shape, rounded and high skull height, broad and flat facial shape, square eye orbits, angled zygomaxillary sutures, a markedly elliptic palate shape, straight palatal suture, and a lack of crowding in the dentition. The femur curvature is uninformative for ancestry because it differs between the left femur (arched) and the right femur (little arching).

In addition to the Gill and Rhine skeletal morphology model, non-metric traits of the maxillary dentition are supportive of White ancestry/Native American admixture. The Carabelli's cusp trait is frequently expressed in males of European descent while the shovel shaped incisor trait is infrequently expressed. Conversely, the shovel shaped incisor trait is frequently expressed in populations of Asian descent, such as Native Americans. The Carabelli's cusp trait is infrequently expressed in these populations. Research on the genetic basis for expression of these traits is published in the current dental and anthropological literature. Both traits are observed in the maxillary



dentition of ML73–3413, suggesting a possible combination of White and Asian/Native American ancestry. See the Dentition section below for further description.

### Sex

The decedent is estimated as male based on results from the FORDISC 3.1 cranial and postcranial analyses described under Ancestry, the diameter of the humeral and femoral heads, the morphology of the cranium using the Buikstra and Ubelaker model, and the structure of the pelvis following the Phenice model.

The male characteristic of marked extension of the zygomatic arch past the external auditory meatus is observed in the cranium. The majority of the cranial characteristics are either indeterminate or female in expression, likely due to the young developmental age of the decedent. Male characteristics observed in the postcranial skeleton include features of the pelvis (a narrow sciatic notch, absence of a ventral arc, subpubic convexity, absence of ischiopubic concavity, short pubic length, and a flat sacral attachment), humeral head diameters greater than 47.2 mm and femoral head diameters of 47 mm and 48 mm.

### Stature

Living stature is estimated using FORDISC 3.1 comparison of postcranial measurements from the decedent with those of White males compiled in the Forensic Database. FORDISC 3.1 calculates an estimated stature range of 62.0”–68.6” (5’2”–5’9”).

DRAFT

### Trauma

#### *Antemortem:*

An investigator supplement to the ML73–3413 autopsy report notes that “An X-ray of Billy Baulch’s left elbow...revealing a fracture which occurred in 1966” was turned over to H.C. Gregory of the Harris County Morgue. This radiograph is not available for review. No fracture scars are observed on the distal left humerus or the proximal left radius and ulna. Instead, a very subtle well-healed fracture scar is observed on the distal left radius. Due to the fact that the elbow injury occurred approximately five years prior to death and the decedent was 11 years old at the time, it is possible that the fracture line is no longer visible.

#### *Perimortem:*

No perimortem injury is described in the ML73–3413 autopsy report. Due to taphonomic processes of burial and periodic submersion in water for 38 years,

perimortem injury to the skeleton cannot be reliably distinguished from postmortem damage.

*Postmortem:*

The maxillary dental arch was removed with an autopsy saw for identification purposes at the original examination. Crumbling of the fragile nasal bones, ethmoid, and vomer is observed. A small round defect in the superior right scapular blade is consistent with puncture of the delicate blade in an anatomically anterior to posterior direction. The elements are coated with residual quick-lime (noted at autopsy) as well as the precipitated mineral sheets described above. The cortical surfaces of the morphological features are somewhat eroded. A complete transverse fracture of left rib 9 occurred during cleaning of the elements for examination.

Pathology and Individualizing Characteristics

No pathological conditions are observed. The following individualizing characteristics are present: retained metopic suture of the frontal bone and incomplete fusion of the first cervical vertebra posterior rim.

DRAFT

Dentition

The mandible was not recovered in 1973 and is absent at this examination. All maxillary teeth were present in the dental arcade at recovery in 1973. Teeth 8–12 are absent postmortem at this examination but are documented in the original autopsy report and photographs. The dentition is relatively healthy and no reconstructions are observed. A Carabelli's cusp (accessory cusp that may develop on the mesiolingual cusp of the maxillary first molar) is observed on teeth 3 and 14. Tooth 7 is shovel-shaped (presence of lingual marginal ridges resulting in a concave lingual surface).

Dr. Paul G. Stimson notes caries on teeth 2–3 and 14–15 during his examination of the maxillary dentition in 1973. These caries are observed as pits within the grooves around the occlusal cusps. Dr. Stimson also notes chipping and excessive wear on tooth 9 but tooth 9 is now absent. See Dental Examination on page 4 of the ML73–3413 autopsy report.

Postmortem Interval

At the time of original skeletal recovery from a shallow sandy beach grave in August 1973, Billy Baulch had been missing since May 21, 1972 (14 months). The remains were coated with lime and wrapped in heavy plastic. The condition of the remains at recovery was described in the ML73–3413 autopsy report as, "skeletal remains...with



the flesh nearly completely deteriorated away.” Photographs depict disarticulated elements, fully exposed bone, and minimal amounts of adherent tissue. Given the circumstances of deposition, the decomposition stage is consistent with a postmortem interval of one to two years.

DRAFT

#### Identification

ML73-3413 was identified in 1973 as Billy Gene Baulch, Jr. based on the following evidence.

- Recognition of the head hair by parents, Mr. and Mrs. Billy Gene Baulch, Sr.
- Recognition of the anterior teeth by Mr. and Mrs. Baulch, particularly the “pointed canines” and a chip in the occlusal surface of tooth 9.
- Review of an antemortem photo of Billy Baulch that shows the anterior teeth in comparison with the maxillary dental arcade of ML73-3413 and also with Dr. Paul Stimson’s (forensic odontologist) dental chart and description
- Review of a radiograph of Billy Baulch’s left elbow (no results documented)

DNA sampling and profile comparison were completed as a part of the current examination. Buccal swabs were obtained from Debra Baulch Hernandez, sister of Billy and Michael Baulch. The DNA profile obtained from the swabs was compared with both mitochondrial and nuclear DNA profiles obtained from the left innominate, one upper range lumbar vertebra, and the left fifth metatarsal of the ML73-3413 remains, and the cranium and ribs of ML73-3378. The following statistical conclusions were reported by UNT.

- It is 820 million times more likely that ML73-3413 is a sibling of Debra Sue Baulch Hernandez than if the decedent is unrelated to her.
- It is 10,000 times more likely that ML73-3378 (identified as Michael Baulch) is another biological sibling of Debra Sue Baulch Hernandez than if the decedent is unrelated to her.
- It is at least 379 times more likely that ML73-3413 and ML73-3378 are related as siblings than if they are unrelated.

The DNA profile comparisons are consistent with identification of ML73-3413 and ML73-3378 as Billy and Michael Baulch, respectively. ML73-3413 is identified as Billy and ML73-3378 is identified as Michael due to consistencies in disappearance dates and decomposition stages. Billy disappeared 14 months prior to the recovery of ML73-3413. The decomposition stage at recovery described above is consistent with that

postmortem interval. Michael disappeared on July 17, 1973, only three weeks prior to the recovery of ML73-3378 in an articulated and fleshed state.

Summary

The skeletal remains of ML73-3413 are estimated to represent a White male, 16-19 years of age and 5'2"-5'9" inches tall. ML73-3413 is identified as Billy Gene Baulch, Jr. through DNA profile comparison, development of a consistent biological profile, decomposition stage at recovery, and circumstantial evidence. The remains of Billy Baulch are commingled with skeletal elements representing a minimum of one additional individual. These elements have been examined and submitted to UNT for DNA analysis. With the exception of the commingling and observation of a well-healed fracture scar on the distal left ulna, the anthropological findings are consistent with the autopsy findings in the report filed on August 14, 1973. No perimortem skeletal trauma or pathological conditions are observed.

DRAFT

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Sharon M. Derrick, Ph.D.  
Forensic Anthropologist

MMDDYY

Reviewed by:

DRAFT

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Jennifer C. Love, Ph.D., D-ABFA  
Forensic Anthropology Director

MMDDYY





Harris County Institute of Forensic Sciences  
Forensic Anthropology Division  
Data Sheets



Case # ML73-3413 (2011-00551a) Anthropologist S. Derrick  
 Date/Hour of Examination 3/11/2011 - 3/14/2011  
 Pathologist Jachimczyk County Harris

Scene Description  
Exhumation from buried casket. Ground water seepage  
Woodlawn Cemetery, 2/8/2011, Order# 2010-83018

Condition of Remains  
Friable, muddy, minimal deposits, very wet, soft

Processing Procedure  
Elements were handwashed in cool water and air-dried  
on trays.

Personal Property  
None

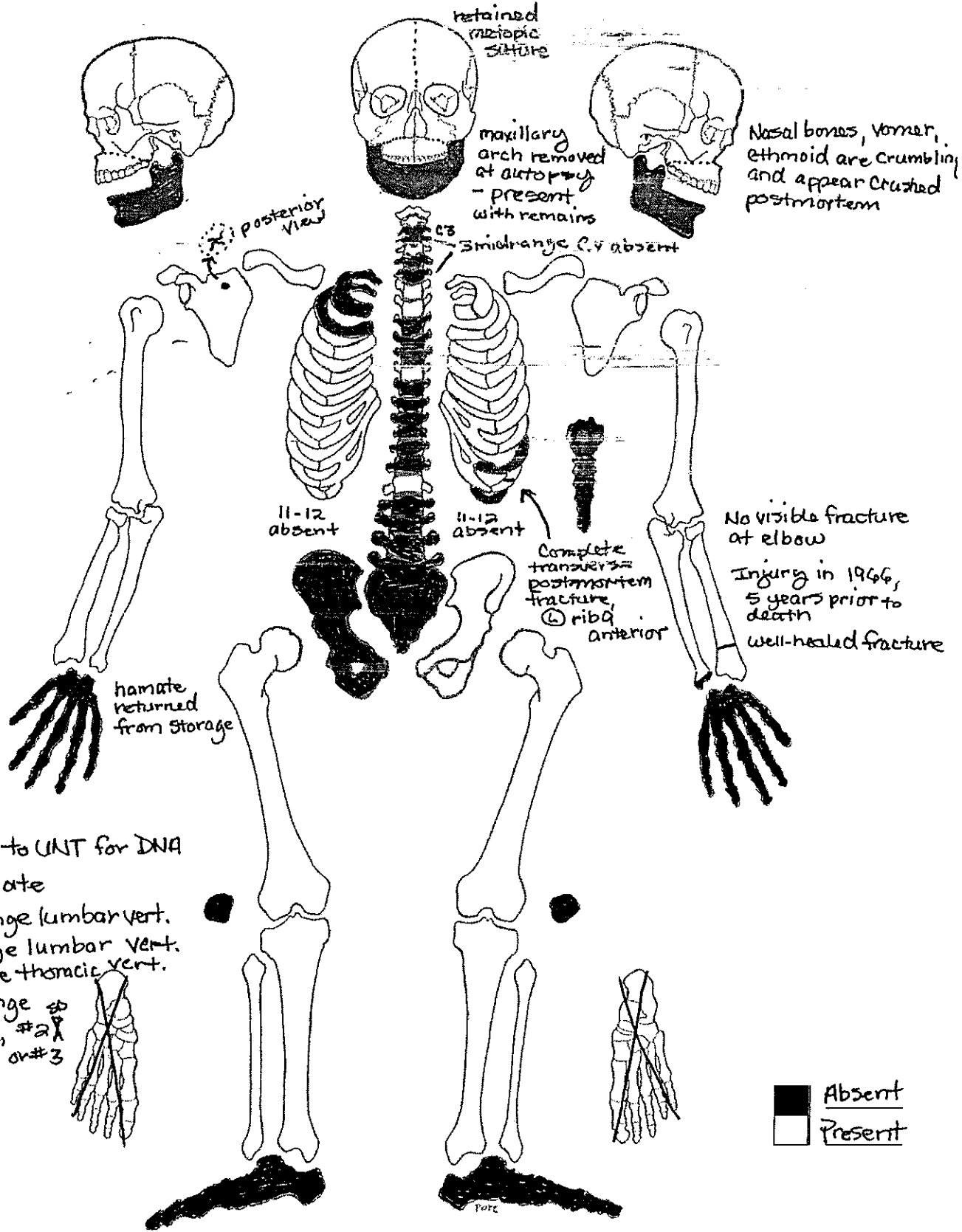
Positively Identified (by) HEIFS/UNT DNA results (technique) DNA (mito + nuclear)

Decedent Name Billy Gene Baulch, Jr., WM17, 5'9", 145 lbs (description)

Unidentified Checklist:

- |   |   |
|---|---|
| <p>Dental Chart</p> <p><input checked="" type="checkbox"/> Anthropologist</p> <p><input checked="" type="checkbox"/> Odontologist</p> <p><input type="checkbox"/> Edentulous</p> <p>Radiographs <u>N/A, Identified Case</u></p> <p><input type="checkbox"/> Articulated</p> <p><input type="checkbox"/> Disarticulate</p> <p><input checked="" type="checkbox"/> Dental → <u>previously done by Dr. Stimson</u><br/><u>no electronic copies available</u></p> <p>DNA <u>identified</u></p> <p><input checked="" type="checkbox"/> UNT</p> <p><input type="checkbox"/> HCME Lab Archives</p> | <p>Photographs</p> <p><input checked="" type="checkbox"/> Skeletal Overview</p> <p><input checked="" type="checkbox"/> Biological Profile</p> <p><input checked="" type="checkbox"/> Reconstruction</p> <p><input checked="" type="checkbox"/> Trauma</p> <p><u>N/A</u> Radiographs <u>Identified</u></p> <p>Dissemination <u>N/A, Identified Case</u></p> <p><input type="checkbox"/> Law Enforcement</p> <p><input type="checkbox"/> Media</p> <p><input type="checkbox"/> NCMEC # _____</p> <p><input type="checkbox"/> NCIC # _____</p> <p><input type="checkbox"/> NamUs # _____</p> <p>Update Databases <u>N/A-ED</u></p> <p><input checked="" type="checkbox"/> Justice Tracks</p> <p><input checked="" type="checkbox"/> Anthropology Logbook</p> |
|---|---|

Harris County Medical Examiner's Office  
 Forensic Anthropology Division  
 Skeleton - Anterior View



\* Submitted to UNT for DNA

R. innominate

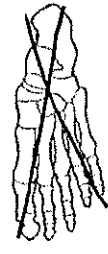
1 upper range lumbar vert.

1 mid-range lumbar vert.

1 mid-range thoracic vert.

1 upper range

@ rib, #2 or #3



■ Absent  
 □ Present

IO11-00556 converted to  
 Case Number ML73-3413  
 Analyst S. Desnick  
 Date 2/10/2011

Harris County Institute of Forensic Sciences  
Forensic Anthropology Division  
Fordisc Measurements

*Used left side measurements  
in FORDIC when possible*

CRANIAL MEASUREMENTS (Pages 52-60)

		Left	Right
1. MAXIMUM LENGTH (g-op):	<u>125</u>		
2. MAXIMUM BREADTH (eu-au):	<u>125</u>		
3. BIZYGOMATIC BREADTH (zy-zy):	<u>132</u>		
4. BASION-BREGMA (ba-b):	<u>137</u>		
5. CRANIAL BASE LENGTH (ba-n):	<u>103</u>		
6. BASION-PROSTHION L. (ba-pr):	<u>99*</u>		
7. MAX.-ALVEOLAR BR. (ecm-ecm):	<u>62*</u>		
8. MAX.-ALVEOLAR L. (pr-alv):	<u>54*</u>		
9. BIAURICULAR BREADTH (ALB):	<u>119</u>		
10. UPPER FACIAL HGT. (n-pr):	<u>63*</u>		
11. MIN. FRONTAL BR. (ft-ft):	<u>47</u>		
12. UPPER FACIAL BR. (fmt-fmt):	<u>104</u>		
13. NASAL HEIGHT (n-ns):		<u>48*</u>	
14. NASAL BREADTH (al-al):		<u>23*</u>	
15. ORBITAL BREADTH (d-ec):		<u>44</u>	
16. ORBITAL HEIGHT (OBH):		<u>30</u>	
17. BIORBITAL BR. (ec-ec):		<u>97</u>	
18. INTERORBITAL BR. (d-d):		<u>21</u>	
19. FRONTAL CHORD (n-b):		<u>107</u>	
20. PARIETAL CHORD (b-1):		<u>121</u>	
21. OCCIPITAL CHORD (l-o):		<u>94</u>	
22. FORAMEN MAGNUM L. (ba-o):		<u>36</u>	
23. FORAMEN MAGNUM BR (FOB):		<u>33</u>	
24. MASTOID LENGTH (MDH):		<u>30</u>	<u>30</u>

MANDIBULAR MEASUREMENTS (Pages 61-63)

*No mandible*

	Left	Right	Left	Right
25. CHIN HEIGHT (gn-id):	---	---		
26. BODY HEIGHT at MENTAL FOR:	---	---		
27. BODY THICKNESS at M. FOR:	---	---		
28. BIGONIAL DIAMETER (go-go):	---	---		
29. BICONDYLAR BR. (cdl-cdl):	---	---		
30. MIN. RAMUS BREADTH:			---	---
31. MAX. RAMUS BREADTH:			---	---
32. MAX. RAMUS HEIGHT:*			---	---
33. MAND. LENGTH:*			---	---
34. MAND. ANGLE:*			---	---

\* Record only if mandibulometer is used.

POSTCRANIAL MEASUREMENTS (Pages 64-76)

	Left	Right	Left	Right	
CLAVICLE: Epiph. P/A:					
35. MAXIMUM LENGTH:	<u>146</u>	<u>151</u>			
36. SAGITTAL DIAM. at MIDSH:	<u>15</u>	<u>14</u>			
37. VERTICAL DIAM. at MIDSH:	<u>10</u>	<u>10</u>			
SCAPULA: Epiph. P/A:					
38. HEIGHT:	<u>146</u>	<u>148</u>			
39. BREADTH:	<u>101</u>	<u>102</u>			
HUMERUS: Epiph. P/A:					
40. MAXIMUM LENGTH:	<u>313</u>	<u>315</u>			
41. EPICONDYLAR BREADTH:	<u>61</u>	<u>62</u>			
42. MAX. VERT. DIAM. of HEAD:	<u>48</u>	<u>48</u>			
43. MAX. DIAM. at MIDSHAFT:	<u>24</u>	<u>24</u>			
44. MIN. DIAM. at MIDSHAFT:	<u>18</u>	<u>19</u>			
RADIUS: Epiph. P/A:					
45. MAXIMUM LENGTH:	<u>243</u>	<u>open epiph.</u>			
46. SAGITTAL DIAM. at MIDSH:	<u>12</u>	<u>12</u>			
47. TRANSV. DIAM. at MIDSH:	<u>16</u>	<u>16</u>			
ULNA: Epiph. P/A:					
48. MAXIMUM LENGTH:	<u>no epiph.</u>	<u>261</u>			
49. DORSO-VOLAR DIAMETER:	<u>16</u>	<u>16</u>			
50. TRANSVERSE DIAMETER:	<u>15</u>	<u>15</u>			
51. PHYSIOLOGICAL LENGTH:	<u>no epiph.</u>	<u>240</u>			
52. MIN. CIRCUMFERENCE:	<u>40</u>	<u>40</u>			
SACRUM: No. Segments: <u>Absent</u>					
53. ANTERIOR HEIGHT:	---	---			
54. ANTERIOR SURFACE BREADTH:	---	---			
55. MAX. BREADTH (S-1)	---	---			
INNOMINATE: Epiph. P/A:					
56. HEIGHT:			<u>207</u>	<u>209</u>	<i>(not likely to belong to case)</i>
57. ILIAC BREADTH:			<u>134</u>	<u>156</u>	
58. PUBIS LENGTH:			<u>79</u>	<u>85</u>	
59. ISCHIUM LENGTH:			<u>78</u>	<u>79</u>	
FEMUR: Epiph. P/A:					
60. MAXIMUM LENGTH:			<u>431</u>	<u>434</u>	
61. BICONDYLAR LENGTH:			<u>429</u>	<u>429</u>	
62. EPICONDYLAR BREADTH:			<u>81</u>	<u>80</u>	
63. MAX. DIAM. of HEAD:			<u>47</u>	<u>48</u>	
64. A-P SUBTROCH. DIAMETER:			<u>29</u>	<u>29</u>	
65. TRANSV. SUBTROCH. DIAM.:			<u>32</u>	<u>32</u>	
66. A-P DIAM. MIDSH:			<u>26</u>	<u>26</u>	
67. TRANSV. DIAM. MIDSH:			<u>28</u>	<u>29</u>	
68. CIRCUMFERENCE AT MIDSH:			<u>90</u>	<u>90</u>	
TIBIA: Epiph. P/A:					
69. CONDYLO-MALLEOLAR LEN:			<u>366</u>	<u>367</u>	
70. MAX. PROX. EPIPH. BR:			<u>77</u>	<u>77</u>	
71. MAX. DIST. EPIPH. BR:			<u>52</u>	<u>52</u>	
72. MAX. DIAM. NUTRIENT FOR:			<u>38</u>	<u>38</u>	
73. TRANSV. DIAM. NUTR. FOR:			<u>24</u>	<u>24</u>	
74. CIRCUM. AT NUTR. FOR:			<u>100</u>	<u>100</u>	
FIBULA: Epiph. P/A:					
75. MAXIMUM LENGTH:			<u>360</u>	<u>363</u>	
76. MAX. DIAM. at MIDSHAFT:			<u>17</u>	<u>18</u>	
CALCANEUS: Epiph. P/A: <u>Absent</u>					
77. MAXIMUM LENGTH:					
78. MIDDLE BREADTH:					

\* = reconstructed

DF results using 39 variables:

CLAAPD	CLAVRD	CLAXLN	FEMBLN	FEMCIR	FEMEBR
FEMHDD	FEMMAP	FEMMTV	FEMSAP	FEMSTV	FEMXLN
FIBMDM	FIBXLN	HUMEBR	HUMHDD	HUMMWD	HUMMXD
HUMXLN	ILLABR	INNOHT	ISCHLN	PUBCLN	RADAPD
RADTVD	RADXLN	SCAPBR	SCAPHT	TIBCIR	TIBDEB
TIBNFT	TIBNFX	TIBPEB	TIBXLN	ULNCIR	ULNDVD
ULNPHL	ULNTVD	ULNXLN			

From Group	Total Number	Into Group BF	Into Group BM	Into Group WF	Into Group WM	Percent Correct
BF	18	14	1	3	0	77.8 %
BM	35	0	32	0	3	91.4 %
WF	55	4	0	50	1	90.9 %
WM	102	3	6	0	93	91.2 %

Total Correct: 189 out of 210 (90.0 %) \*\*\* CROSSVALIDATED \*\*\*

Multigroup Classification of Current Case

Group	Classified into	Distance from	Probabilities Posterior	Typ F	Typ Chi	Typ R
WM	**WM**	55.7	0.998	0.657	0.040	0.304 (71/103)
BM		68.2	0.002	-----	0.003	0.057 (33/36)
BF		73.0	0.000	-----	0.001	0.053 (18/19)
WF		78.7	0.000	0.913	0.000	0.018 (56/56)

Current Case is closest to WMs

Group Means

Current Case	Chk	BF 18	BM 35	WF 55	WM 102	
CLAAPD	15	+	11.1	13.8	10.4	12.8
CLAVRD	10		9.7	11.1	9.3	11.3
CLAXLN	146		140.8	159.5	139.0	156.8
FEMBLN	429	-	434.4	479.9	431.1	469.2
FEMCIR	90		80.5	93.1	82.0	92.2
FEMEBR	81		72.4	83.2	75.7	85.0
FEMHDD	47		40.8	47.2	42.3	48.4
FEMMAP	26	-	27.2	31.5	27.4	30.9
FEMMTV	28		23.8	28.0	24.3	27.8
FEMSAP	29	+	25.1	28.7	25.9	28.7
FEMSTV	32		28.3	32.1	29.2	32.1
FEMXLN	431	-	438.9	483.6	435.2	472.5
FIBMDM	17	+	13.8	15.3	14.5	15.8
FIBXLN	360		357.3	395.7	350.8	385.7
HUMEBR	61		54.4	64.2	55.9	64.5
HUMHDD	48		40.3	46.7	42.8	48.6
HUMMWD	18		15.9	19.3	15.5	18.8
HUMMXD	24	+	20.2	23.7	20.0	23.3
HUMXLN	313		304.8	340.4	304.1	335.5
ILLABR	154		142.1	153.6	155.6	160.2
INNOHT	207		189.3	211.0	202.4	223.0
ISCHLN	78		77.5	88.9	81.8	91.0
PUBCLN	79		75.0	76.0	85.3	82.7
RADAPD	12		11.4	13.0	10.4	12.9
RADTVD	16		13.3	16.0	13.7	16.6
RADXLN	243		235.2	266.9	227.8	252.9
SCAPBR	101		94.1	111.1	95.8	108.0
SCAPHT	146		137.1	160.8	141.9	163.0
TIBCIR	100		86.4	100.5	85.9	97.8
TIBDEB	52		45.4	51.8	46.5	52.2
TIBNFT	24		22.9	26.6	22.1	25.5

m674-3413  
S. Derrick

TIBNFX	38	+	31.3	36.7	32.0	36.5
TIBPEB	77		68.3	78.3	69.8	78.9
TIBXLN	366		363.7	403.4	356.9	391.6
ULNCTR	40	+	32.4	37.4	34.0	37.9
ULNDVD	16	+	12.6	15.7	12.0	15.4
ULNPHL	240		224.2	253.8	216.8	239.8
ULNTVD	15		13.4	15.9	13.3	16.3
ULNXLN	261		252.2	285.0	244.3	271.1

-----  
 Natural Log of Determinant = 79.9389

DF results using 5 Forward % selected (min: 1 max: 20, out of 39) variables:

INNOHT RADXLN TIBPEB ILIABR SCAPHT

From Group	Total Number	Into Group BF	Into Group EM	Into Group WF	Into Group WM	Percent Correct
BF	18	16	0	1	1	88.9 %
EM	35	1	33	0	1	94.3 %
WF	55	4	0	51	0	92.7 %
WM	102	3	10	3	86	84.3 %

Total Correct: 186 out of 210 (88.6 %) \*\*\* CROSSVALIDATED \*\*\*

Multigroup Classification of Current Case

Group	Classified into	Distance from	Probabilities Posterior	Typ F	Typ Chi	Typ R
WM	**WM**	5.0	0.478	0.450	0.414	0.451 (56/103)
BF		6.4	0.238	0.494	0.269	0.056 (17/19)
EM		7.1	0.170	0.327	0.215	0.257 (26/36)
WF		7.9	0.114	0.228	0.163	0.036 (53/56)

Current Case is closest to WMs

Group Means

Current Case	Chk	BF 18	EM 35	WF 55	WM 102
INNOHT	207	189.3	211.0	202.4	223.0
RADXLN	243	235.2	266.9	227.8	252.9
TIBPEB	77	68.3	78.3	69.8	78.9
ILIABR	154	142.1	153.6	155.6	160.2
SCAPHT	146	137.1	160.8	141.9	163.0

Natural Log of Determinant = 19.3565

ml73-3413  
S. Derrick

*Cranial  
M & F*

DF results using 17 variables:

AUB BBH BNL BPL FRC GOL MAB NLB NLH OBB  
OBH OCC PAC UFHT WFB XCB ZYB

Variables removed: UFBR MDH MAL DKB EKB FOL FOB

From Group	Total Number	Into Group											Percent Correct	
		AF	AM	BF	BM	CHM	GTM	HF	HM	JF	JM	VM		WF
AF	29	11	7	1	0	1	2	3	1	0	0	2	0	0
AM	51	3	33	0	1	4	2	1	1	1	2	0	1	0
BF	70	2	0	38	4	0	4	8	3	3	0	6	1	1
BM	95	4	1	9	52	6	1	2	6	3	4	2	0	5
CHM	69	4	0	0	8	33	3	1	2	1	11	5	0	1
GTM	68	7	3	3	2	0	41	5	2	0	2	2	1	0
HF	42	1	0	3	0	1	5	22	0	2	1	3	4	0
HM	166	13	7	2	16	15	25	15	30	1	17	9	2	14
JF	118	0	0	4	0	2	0	0	0	112	0	0	0	0
JM	168	5	10	0	4	21	10	8	6	2	82	14	2	4
VM	48	0	0	0	0	4	3	6	0	2	4	29	0	0
WF	160	1	0	7	0	1	0	8	1	0	2	3	122	15
WM	261	6	2	1	8	5	0	3	1	0	14	2	19	200

Total Correct: 805 out of 1345 (59.9 %) \*\*\* CROSSVALIDATED \*\*\*

Multigroup Classification of Current Case

Group	Classified into	Distance from	Probabilities			Typ R
			Posterior	Typ F	Typ Chi	
WM	**WM**	20.2	0.774	0.345	0.265	0.406 (155/262)
WF		24.5	0.090	0.209	0.107	0.131 (139/161)
BM		25.7	0.049	0.255	0.080	0.147 (81/96)
AM		27.2	0.023	0.419	0.055	0.176 (42/52)
AF		27.3	0.022	0.785	0.054	0.069 (27/30)
CHM		28.3	0.013	0.257	<b>0.041</b>	<b>0.029 (67/70)</b>
HM		28.7	0.011	0.097	<b>0.038</b>	0.096 (150/167)
JM		29.3	0.008	0.085	<b>0.032</b>	<b>0.012 (166/169)</b>
JF		29.7	0.007	0.111	<b>0.029</b>	<b>0.008 (119/119)</b>
BF		31.9	0.002	0.163	<b>0.015</b>	<b>0.014 (70/71)</b>
HF		33.5	0.001	0.349	<b>0.010</b>	<b>0.023 (43/43)</b>
GTM		36.4	0.000	0.097	<b>0.004</b>	<b>0.014 (69/69)</b>
VM		37.9	0.000	0.184	<b>0.003</b>	<b>0.020 (49/49)</b>

Current Case is closest to WMs

Current Case	Chk	Group Means													
		AF 29	AM 51	BF 70	BM 95	CHM 69	GTM 68	HF 42	HM 166	JF 118	JM 168	VM 48	WF 160	WM 261	
AUB 119		125.6	132.1	115.6	120.7	123.9	123.7	119.0	124.1	112.1	125.7	122.8	111.1	111.2	
BBH 137		129.6	133.4	131.2	137.3	139.7	133.2	131.7	136.5	132.1	138.8	127.8	131.1	141.9	

P.7 of 14

*Group 1150-119*

*S. Danville  
M273-3413*

FORDISC 3.1 Analysis of Current Case

3/17/2011 9:55:06 AM

BNL	103	99.9	103.0	98.3	104.4	100.3	98.5	95.6	100.8	95.2	101.5	97.6	99.2	106.3
BPL	99	96.7	100.1	98.8	104.4	97.1	97.9	93.0	98.7	94.2	97.7	95.4	92.2	98.0
FRC	107	107.6	110.8	107.8	112.6	113.2	106.5	106.4	110.9	107.1	112.6	112.1	109.2	114.8
GOL	185	177.3	180.1	178.0	186.8	181.2	173.2	171.2	178.0	171.6	180.1	172.4	177.5	187.9
MAB	62	62.8	66.2	62.5	66.2	65.4	64.5	62.6	65.4	61.6	65.5	66.4	58.0	61.7
NLB	23	25.4	26.1	25.0	26.3	25.9	25.5	24.0	24.9	24.8	25.1	26.2	22.3	23.7
NLH	48	-	51.5	53.8	48.1	52.4	52.3	51.8	49.3	52.1	48.2	52.6	53.1	48.9
OBB	44	+	40.7	42.2	38.4	40.6	38.8	38.9	38.8	39.9	38.1	39.2	38.4	39.1
OBH	30	--	35.1	35.2	34.4	35.1	34.1	36.1	35.5	35.3	33.8	34.7	33.8	33.8
OCC	94		93.7	93.9	97.3	98.7	98.2	95.6	96.2	97.5	96.8	101.5	98.4	97.8
PAC	121	+	107.7	110.1	112.6	117.0	115.1	112.3	108.7	111.4	108.5	111.3	110.4	112.8
UFHT	63	-	70.8	73.4	66.7	73.0	72.1	71.5	67.6	73.7	65.8	71.2	71.5	67.6
WFB	97		93.0	97.1	93.2	96.0	92.5	92.9	92.2	94.0	90.0	94.3	94.7	93.4
XCB	135		137.0	143.0	132.7	135.4	139.2	136.4	135.4	138.2	136.3	141.3	140.5	135.3
ZYB	132		131.8	141.2	121.9	130.5	133.0	131.5	123.7	131.1	125.4	134.2	130.0	120.2
														129.6

Natural Log of Determinant = 42.2726

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ML73-3413  
S. Dennis

Surf H-10-9-11



FORDISC 3.1 Analysis of Current Case

4/26/2011 1:20:30 PM

DF results using (11) Forward % selected (min: 1 max: 20, out of 16) variables:  
 GOL ZYB BBH NLB BNL OCC BPL OBH WFB NLH  
 PAC

Variables removed: UFBR MDH MAL DKB EKB FOL FOB

From Group	Total Number	Into Group	AM	BM	CHM	GTM	HM	JM	VM	WM	Percent Correct
AM	51		34	2	4	5	0	3	2	1	66.7 %
BM	96		2	64	2	6	9	4	2	7	66.7 %
CHM	69		1	8	35	4	3	10	5	3	50.7 %
GTM	68		4	1	0	52	8	0	2	1	76.5 %
HM	172		5	20	21	40	30	22	15	19	17.4 %
JM	168		22	8	24	6	19	71	14	4	42.3 %
VM	48		0	0	4	3	2	5	33	1	68.8 %
WM	263		1	17	9	1	12	11	8	204	77.6 %

Total Correct: 523 out of 935 (55.9 %) \*\*\* CROSSVALIDATED \*\*\*

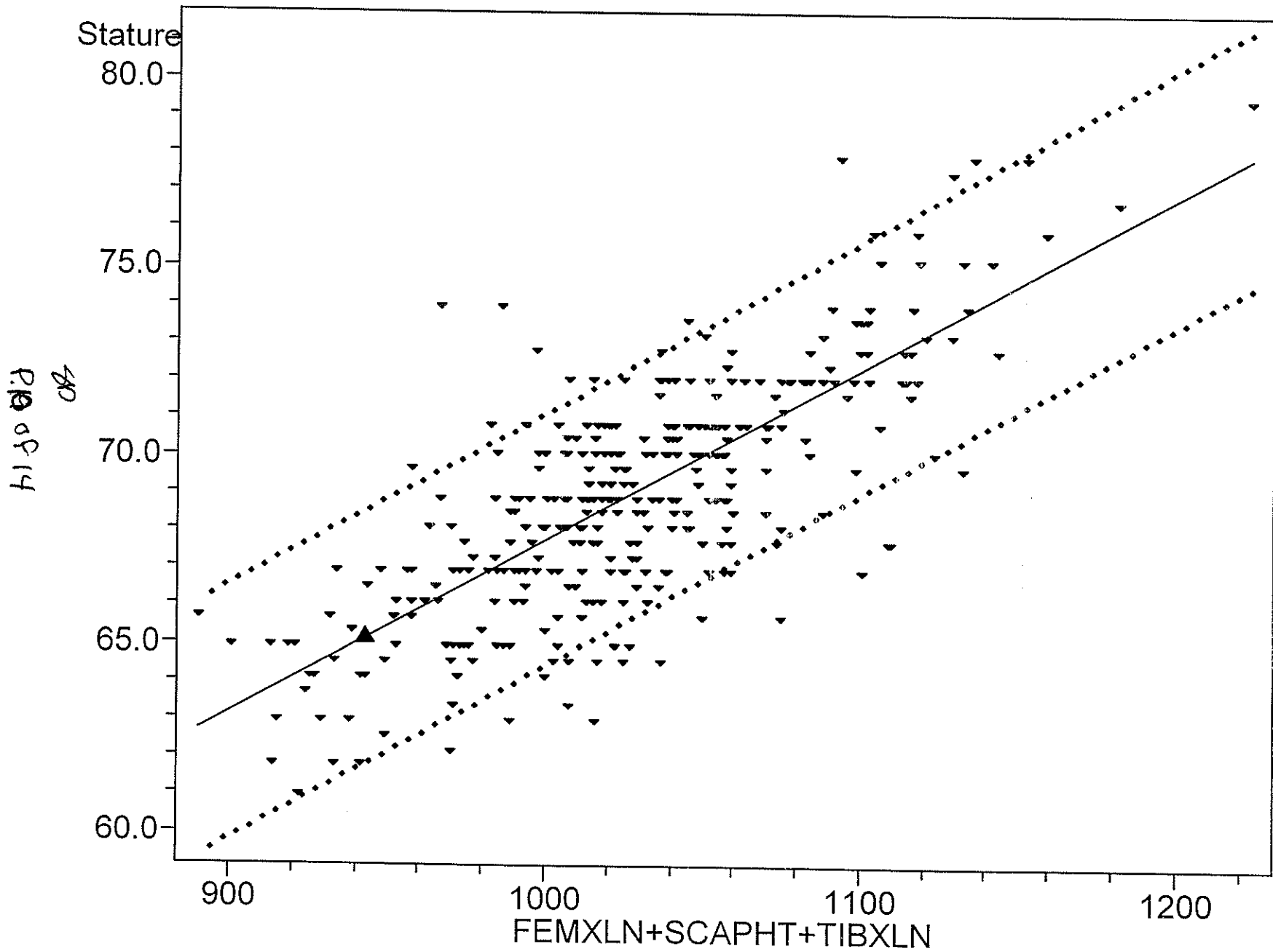
Multigroup Classification of Current Case

Group	Classified into	Distance from	Probabilities Posterior	Typ F	Typ Chi	Typ R
WM	**WM**	8.8	0.645	0.677	0.645	0.635 (96/264)
CHM		12.6	0.096	0.492	0.323	0.130 (60/70)
JM		12.8	0.086	0.376	0.308	0.262 (124/169)
HM		13.2	0.070	0.346	0.280	0.326 (116/173)
BM		13.4	0.062	0.385	0.265	0.385 (59/97)
AM		14.7	0.033	0.425	0.197	0.255 (38/52)
GTM		18.4	0.005	0.196	0.072	<b>0.044 (65/69)</b>
VM		19.5	0.003	0.229	0.053	<b>0.042 (46/49)</b>

Current Case is closest to WMs

Current Case	Chk	Group Means								
		AM 51	BM 96	CHM 69	GTM 68	HM 172	JM 168	VM 48	WM 263	
GOL	185	180.1	186.8	181.2	173.2	178.0	180.1	172.4	187.9	
ZYB	132	141.2	130.5	133.0	131.5	131.2	134.2	130.0	129.6	
BBH	137	133.4	137.3	139.7	133.2	136.5	138.8	137.8	141.9	
NLB	23	26.1	26.3	25.9	25.5	24.9	25.1	26.2	23.7	
BNL	103	103.0	104.4	100.3	98.5	100.7	101.5	97.6	106.3	
OCC	94	93.9	98.6	98.2	95.6	97.7	101.5	98.4	100.8	

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4/27/2011 FORDISC 3.1 : Estimated Stature = 62.0 to 68.6 inches (90% prediction interval)

Harris County Institute of Forensic Sciences  
 Forensic Anthropology Division  
 Estimation of Race  
 (Gill and Rhine 1990, Base 1987, Burns 1999)

ESTIMATION OF RACE White / Asian-Native American . += NOTICABLE, ++ = PROMINENT  
American Admixture

CAUCASIAN	AFRICAN-AMERICAN	ASIAN/NATIVE AMERICAN
Skull Shape: ___ High, Narrow	___ Low w/Postbregmatic Depression	<u>+</u> Low, Sloping
Skull Height: ___ Rounded, Narrow	___ Low and Flat	<u>+</u> Rounded, High
Face Shape: ___ Narrow, Long	___ Prognathic	<u>+</u> Broad, Flat
Eye Orbits: ___ Slanting Square, Large	___ Laterally Low and Small	<u>+</u> Square
Zygomastics: <u>++</u> Small- Retreating Malars	___ Small, Retreating Malars	___ Robust and Flaring
Zygomaxillary Suture: ___ Jagged, S-Shaped	___ Curved or S-Shaped	<u>+</u> Angled
Nasal Sill: <u>+</u> Sharp, Protruding	___ Guttered	___ Sharp
Nasal Aperture: <u>+</u> Narrow	___ Wide	___ Medium
Nasal Spine: <u>Not present</u> ___ Large, Long	___ Little or None	___ Medium, Tilted
Nasal Bones: <u>+</u> High, Arched	___ Low, Flat Wide Arch	___ Low "Tented" Arched
Alveolar Prognathism: <u>+</u> Narrow, Little	___ Pronounced	___ Reduced
Palatal Shape: ___ Parabolic, Narrow	___ Hyperbolic	<u>++</u> Elliptic
Palatal Suture: ___ Z-Shaped	___ Arched	<u>+</u> Straight
Chin: <u>Not present</u> ___ Square, Projecting	___ Retreating	___ Blunt
Dentition: ___ Crowded, Impacted M3	___ Crenulated Molars	<u>+</u> Not Crowded
Bite: <u>mandible absent</u> ___ Overbite	___ Overbite, Prognathic	___ Edge-to-Edge
Femur Curvature: <u>+</u> Arched <u>(L)</u>	___ Flat	<u>+</u> Little <u>(R)</u>

Case Number ML73-3413  
 Analyst S. Derrick  
 Date 3/14/2011

Harris County Institute of Forensic Sciences  
 Forensic Anthropology Division  
 Estimation of Sex  
 (Buikstra and Ubelaker 1994, Ubelaker 1989, Bass 1987)

Young individual

	-2	FEMALE			MALE		+2
		-1	0	+1			
<b>CRANIAL</b>							
Supra-Orbital Margin							
Supra-Orbital Ridge							
Mastoid Process							
Zygomatic Arch Extension							
Nuchal Crest							
Mental Eminence	Not present						
Mandibular Ramus	Not present						
Temporalis Attachment							
<b>POSTCRANIAL</b>							
Sciatic Notch							
(Phenice 1969) Ventral Arc			<input type="checkbox"/> Presence		<input checked="" type="checkbox"/> Absence		
Subpubic Concavity			<input type="checkbox"/> Concave		<input checked="" type="checkbox"/> Convex		
Ischiopubic Concavity			<input type="checkbox"/> Presence		<input checked="" type="checkbox"/> Absence		
Pubic Length			<input type="checkbox"/> Long		<input checked="" type="checkbox"/> Short		
Sacral Attachment			<input type="checkbox"/> Elevated		<input checked="" type="checkbox"/> Flat		
Sacrum	Not present		<input type="checkbox"/> Straight		<input type="checkbox"/> Curved		
(Stewart 1979) Femoral Head Diameter	<42.5mm		43-46mm	<u>&gt;47.5mm</u>			
Humeral Head Diameter	<42.7		43-46mm	<u>&gt;47.2mm</u>			

Harris County Institute of Forensic Sciences  
Forensic Anthropology Division  
Age Estimation

ESTIMATION OF AGE: 16-19 years

POSTCRANIAL:

Pubic Symphysis:

FEMALE (Suchey-Brooks 1990, Suchey and Katz 1986) \_\_\_\_\_  
 MALE (Suchey-Brooks 1990, Suchey and Katz 1986) I-1  
 Symphyseal face innom. Slightly more developed than  
is somewhat eroded right innominate that does not  
 MALE (Todd 1920, 1921) clear absence I: \_\_\_ II: \_\_\_ III: \_\_\_  
of upper/lower delimitation I: \_\_\_ II: \_\_\_ III: \_\_\_  
 MALE (Suchey-Brooks 1990, Suchey and Katz 1986) I: \_\_\_ II: \_\_\_ III: \_\_\_  
marked ridges/furrows present I: \_\_\_ II: \_\_\_ III: \_\_\_  
 FEMALE (Suchey-Brooks 1990, Suchey and Katz 1986) I: \_\_\_ II: \_\_\_ III: \_\_\_

\* Using LEFT

Right  
Probably  
Does not belong to  
RIGHT ML73-3413 95%

\_\_\_\_\_ 15-23 yrs range  
I-1 18.5 yrs  $\bar{x}$  s.d.=2.1  
 I: \_\_\_ II: \_\_\_ III: \_\_\_ belong to  
 I: \_\_\_ II: \_\_\_ III: \_\_\_ remains  
 I: \_\_\_ II: \_\_\_ III: \_\_\_

Sternal Rib End Changes  
(Iscan et al 1984, 1985, 1986)

Rib#: 4 Phase: 0-1a Rib#: \_\_\_ Phase: \_\_\_

<17-19 yrs  
rib end smooth, minimally convex, no rim dev

Epiphyseal Closure (1 = No Union, 2 = Partial Union, 3 = Complete Union)

(Moore-Jansen et al 1994 page 8-9, Webb and Suchey 1985) metopic suture retained, ribs = heads not fused  
one in process

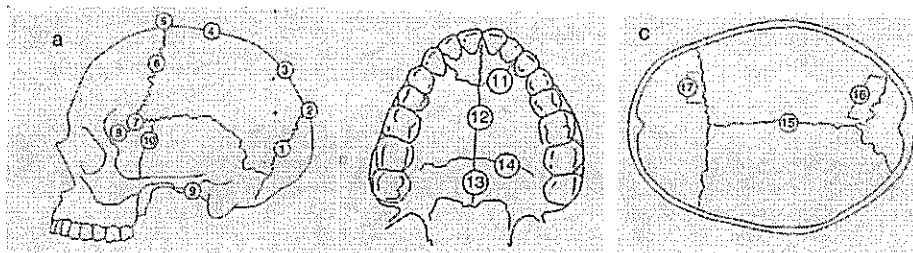
- |   |   |                                   |
|---|---|-----------------------------------|
| 38) Basilar Suture <u>2</u>             | 47) Lumbar Vert Rim <u>2</u>  | 56) Proximal Radius <u>3</u>      |
| 39) Medial Clavicle <u>0</u>            | 48) Sacrum (S1/2) <u>N/A</u>  | 57) distal Radius <u>2</u>        |
| 40) Atlas - Anterior <u>3</u>           | 49) Sacrum (S2/3) <u>N/A</u>  | 58) Distal Ulna <u>2</u>          |
| 41) Atlas - Posterior <u>2</u>          | 50) Sacrum (S3/4) <u>N/A</u>  | 59) Distal Ulna <u>3</u> Proximal |
| 42) Axis - Anterior <u>3</u>            | <u>51) Innom. Prim. Elem</u> <u>3</u> <u>still fusing in acetab</u> | 60) Femur Head <u>2</u>           |
| 43) Axis - Posterior <u>2</u> <u>sd</u> | 52) Ischial Tuberosity <u>2</u>                                     | 61) G. Trochanter <u>3</u>        |
| 44) Cervical Vert Rim <u>3</u>          | 53) Anterior Iliac Crest <u>0</u>                                   | 62) Distal Femur <u>2</u>         |
| 45) Thoracic Vert Rim <u>2</u>          | 54) Proximal Humerus <u>2</u>                                       | 63) Proximal Tibia <u>2</u>       |
| 46) L5 Body - Arch <u>N/A</u>           | 55) Medial Epic. Hum. <u>2</u>                                      | 64) Distal Tibia <u>3</u>         |
- iliac Crest (2)

CRANIAL: The decedent is too young for accuracy w/ this method.

Cranial Suture Closure (Baker 1984, Mann et al 1987,  $\leq$ indl and Lovejoy 1985, Todd and Lyon 1924, 1925)

(0=open, 1=Minimal Closure, 2=Significant Closure, 3=Complete Obliteration/Buikstra and Ubelaker 1994 pages 32-34).

- |             |              |
|-------------|--------------|
| 1) <u>0</u> | 10) <u>0</u> |
| 2) <u>1</u> | 11) <u>1</u> |
| 3) <u>1</u> | 12) <u>0</u> |
| 4) <u>0</u> | 13) <u>0</u> |
| 5) <u>0</u> | 14) <u>1</u> |
| 6) <u>0</u> | 15) <u>0</u> |
| 7) <u>1</u> | 16) <u>0</u> |
| 8) <u>1</u> | 17) <u>0</u> |
| 9) <u>1</u> |              |

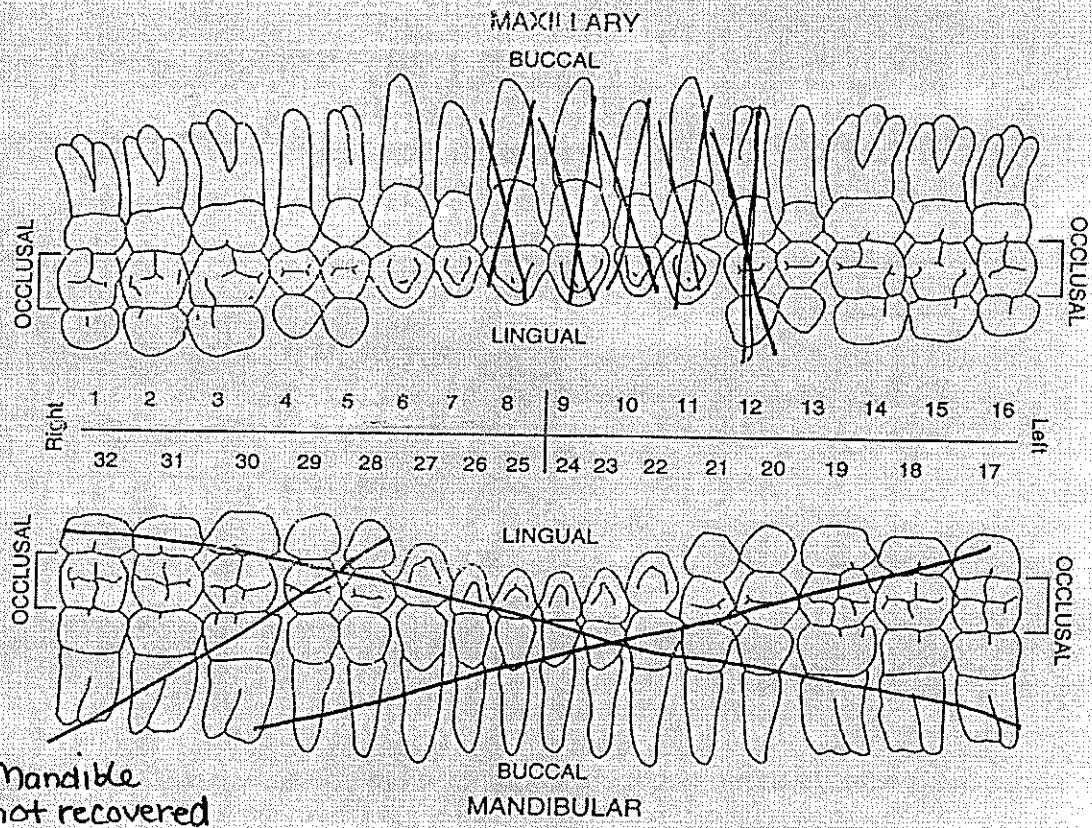


Vault Score (Sites 1-7) 3 Lateral Score (Sites 6-10) 3

Other Indicators of Age: Little to no wear on teeth. Third molar roots open, 3/4 developed.  
Rib heads fusing to neck (17-25 years), one only (16 yrs)

Case Number ML73-3413  
 Analyst S. Derrick  
 Date 3/14/2011

Harris County Institute of Forensic Sciences  
 Forensic Anthropology Division  
 Dentition Chart - Permanent



\* No caries noted, no reconstructions, cusp wear on 3, 14

- |                    |     |  |     |       |
|--------------------|-----|--|-----|-------|
|                    | 1.  | erupting, <sup>3/4</sup> , open roots 16.4 yrs | 17. | _____ |
|                    | 2.  | pit in occlusal buccal groove                  | 18. | _____ |
| Carabelli's cusp   | 3.  | pit in occlusal buccal groove                  | 19. | _____ |
|                    | 4.  | _____  | 20. | _____ |
| Smith 1991         | 5.  | pits in occlusal mesial & distal grooves       | 21. | _____ |
| 80                 | 6.  | root complete, 11+ yrs                         | 22. | _____ |
|                    | 7.  | shovel, root complete, 8.3+ yrs                | 23. | _____ |
|                    | 8.  | _____  | 24. | _____ |
|                    | 9.  | _____  | 25. | _____ |
|                    | 10. | _____  | 26. | _____ |
|                    | 11. | _____  | 27. | _____ |
|                    | 12. | _____  | 28. | _____ |
|                    | 13. | _____  | 29. | _____ |
|                    | 14. | Carabelli's cusp, pitting in occ. grooves      | 30. | _____ |
| pitting in grooves | 15. | apex 1/2 closed 13.9+ yrs                      | 31. | _____ |
|                    | 16. | erupting, <sup>3/4</sup> , open roots 16.4 yrs | 32. | _____ |

\* Dr. Stimson notes occlusal caries on 2, 3, 14, 15. must be very subtle, in grooves? - observed as pits

Case Number ML73-3413  
 Analyst J. Dumick  
 Date 3/14/2011